Access DB# 91548

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Callie Shosho Examiner #: 75636 Date: 6/26/03
Art Unit: 1714 Phone Number 305-0208 Serial Number: 09/409,338
Mail Box and Bldg/Room Location: CP3 5D21 Results Format Preferred (circle): PAPER DISK E-MAIL
CP3 4D01 (mailbox)

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Jet Printing Ink and Ink-Jet Recording Method

Inventors (please provide full names): Makoto Yamada, Toshiki Fujiwara

Earliest Priority Filing Date: 9/30/98

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Please find ink comprising azomethine dye of formula III or IV or azo dye of formula V or VI

Thank You

****

STAFF USE ONLY	Type of Search		Vendors and cost where applicable	
Searcher: EL	NA Sequence (#)		STN	$306.59
Searcher Phone #:	AA Sequence (#)		Dialog	
Searcher Location:	Structure (#)	(5) (subsets)	Questel/Orbit	
Date Searcher Picked Up:	Bibliographic	(and)	Dr.Link	
Date Completed: 6-26-03	Litigation		Lexis/Nexis	
Searcher Prep & Review Time: 10	Fulltext		Sequence Systems	
~~Clerical Prep Time:~~	Patent Family		WWW/Internet	
Online Time: 125	Other		Other (specify)	

PTO-1590 (8-01)

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=> file reg
FILE 'REGISTRY' ENTERED AT 16:52:24 ON 26 JUN 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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=> display history full l1-


     FILE 'LREGISTRY' ENTERED AT 15:38:30 ON 26 JUN 2003
L1              STR

     FILE 'REGISTRY' ENTERED AT 15:47:15 ON 26 JUN 2003
L2             50 SEA SSS SAM L1
                  D QUE STAT
L3          44098 SEA SSS FUL L1
                  SAV TEM L3 SHO338/A

     FILE 'HCA' ENTERED AT 15:52:48 ON 26 JUN 2003
L4          14116 SEA L3
L5          15033 SEA INKJET? OR (JET OR JETS OR JETTED OR JETTING#)(2A)(IN
                  K? OR PRINT?) OR THINKJET?

     FILE 'REGISTRY' ENTERED AT 15:53:02 ON 26 JUN 2003
                  E GLYCEROL/CN
L6              1 SEA GLYCEROL/CN
                  E IMIDAZOLYL/CN
L7              1 SEA IMIDAZOLYL/CN
                  D SCAN
L8              1 SEA "IMIDAZOLYL, 2,4,5-TRIPHENYL-"/CN
                  D SCAN
                  D L7 1 FIDE
L9         537595 SEA 16.195/RID
L10          7295 SEA L9 AND PMS/CI
L11        185258 SEA 16.195.22/RID
                  D L8 1 FIDE
L12           723 SEA 16.195.15/RID
L13          2382 SEA (L11 OR L12) AND PMS/CI

     FILE 'HCA' ENTERED AT 15:59:49 ON 26 JUN 2003
L14        147747 SEA L6 OR GLYCEROL# OR GLYCERIN#
L15          2245 SEA L13
L16           330 SEA L4 AND L5
L17            60 SEA L16 AND L14
L18             0 SEA L16 AND L15
L19          5650 SEA L10
L20             1 SEA L16 AND L19
L21             0 SEA L17 AND L20
L22         14860 SEA ?IMIDAZOLYL?
L23             2 SEA L16 AND L22
L24             0 SEA L23 AND L14
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L27          937 SEA SUB=L3 SSS FUL L25
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L28        43161 SEA L3 NOT L27

     FILE 'HCA' ENTERED AT 16:16:25 ON 26 JUN 2003
L29          283 SEA L27
L30        13888 SEA L28
L31           59 SEA L29 AND L5
L32           11 SEA L31 AND L14
L33          278 SEA L30 AND L5
L34           51 SEA L33 AND L14
L35        10702 SEA (INKJET? OR (JET OR JETS OR JETTED OR JETTING#)(2A)(I
                 NK? OR PRINT?) OR THINKJET?)/TI
L36           40 SEA L34 AND L35
L37           20 SEA L36 AND (1907-1998/PY OR 1907-1998/PRY)
L38        63853 SEA INK?
L39          647 SEA L4 AND L38
L40           10 SEA L39 AND (L15 OR L19 OR L22)
L41            0 SEA L40 AND L14
L42           10 SEA L40 OR L20 OR L23
L43           11 SEA L32 NOT L42
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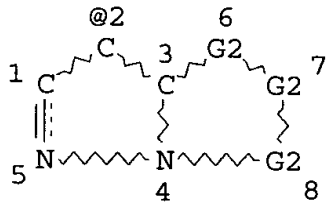
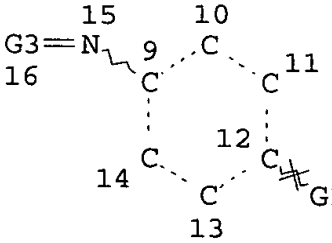


Hy~N
23 @24



N @19

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VAR G2=C/N
VAR G3=2/24
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NSPEC IS RC AT 19
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GGCAT IS UNS AT 23
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 20

STEREO ATTRIBUTES: NONE
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SEARCH TIME: 00.00.07

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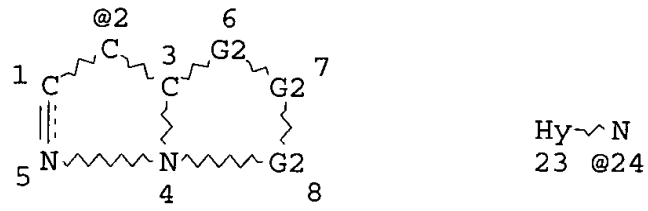

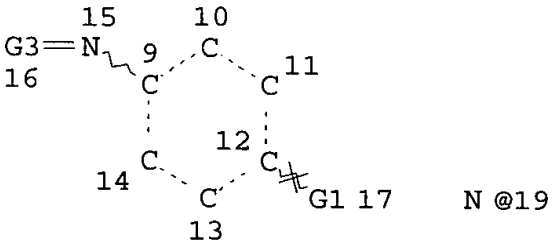

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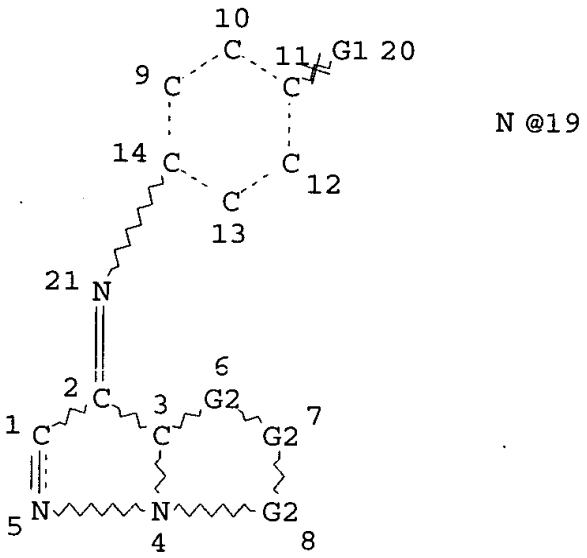
VAR G2=C/N
VAR G3=2/24
NODE ATTRIBUTES:
NSPEC IS RC AT 19
DEFAULT MLEVEL IS ATOM
GGCAT IS UNS AT 23
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 20

STEREO ATTRIBUTES: NONE
L3 44098 SEA FILE=REGISTRY SSS FUL L1
L25 STR



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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
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NUMBER OF NODES IS 17

STEREO ATTRIBUTES: NONE
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SEARCH TIME: 00.00.01

=> file hca
FILE 'HCA' ENTERED AT 16:53:10 ON 26 JUN 2003

=> d l42 1-10 cbib abs hitstr hitind

L42 ANSWER 1 OF 10 HCA COPYRIGHT 2003 ACS

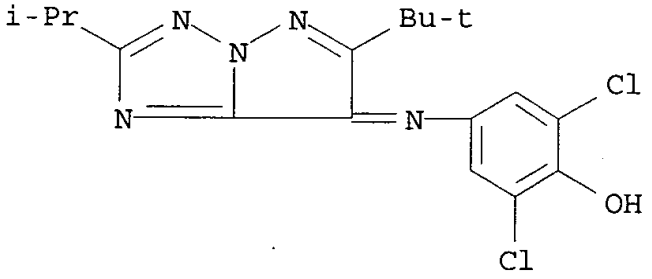
123:22248 Thermal-transfer recording materials with transferred-image stability. Tateishi, Tomoyoshi; Kamio, Takayoshi (Fuji Photo Film Co Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 07061147 A2 19950307 Heisei, 18 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1993-210662 19930825.

AB The title materials contain thermal-transferable dyes capable of giving H to dye-receiving materials which include N-vinylimidazole deriv. polymers and gelatins.

IT **163921-17-3 163921-18-4 163921-26-4**
(thermal-transferable dyes)

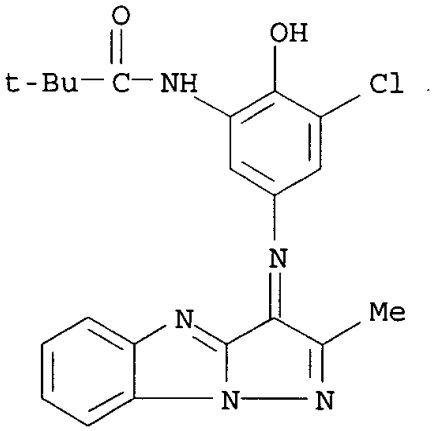
RN 163921-17-3 HCA

CN Phenol, 2,6-dichloro-4-[[6-(1,1-dimethylethyl)-2-(1-methylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]- (9CI) (CA INDEX NAME)



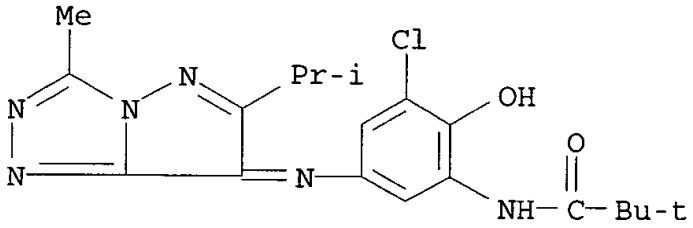
RN 163921-18-4 HCA

CN Propanamide, N-[3-chloro-2-hydroxy-5-[(2-methyl-3H-pyrazolo[1,5-a]benzimidazol-3-ylidene)amino]phenyl]-2,2-dimethyl- (9CI) (CA INDEX NAME)



RN 163921-26-4 HCA

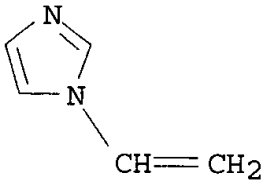
CN Propanamide, N-[3-chloro-2-hydroxy-5-[[3-methyl-6-(1-methylethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]amino]phenyl]-2,2-dimethyl- (9CI) (CA INDEX NAME)



IT **25232-42-2 103437-05-4 159105-83-6**
163921-06-0 163921-07-1 163921-10-6
163921-12-8 163921-14-0 163921-15-1
(vinyl polymers of dye-receiving layer)
RN 25232-42-2 HCA
CN 1H-Imidazole, 1-ethenyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

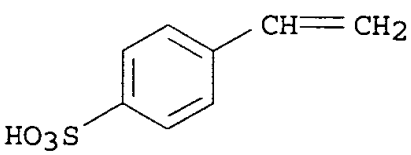
CRN 1072-63-5
CMF C5 H6 N2



RN 103437-05-4 HCA
CN Benzenesulfonic acid, 4-ethenyl-, potassium salt, polymer with 1-ethenyl-1H-imidazole and 1-ethenyl-2-pyrrolidinone (9CI) (CA INDEX NAME)

CM 1

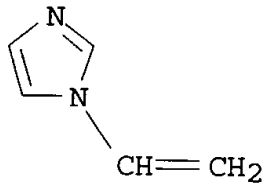
CRN 4551-90-0
CMF C8 H8 O3 S . K



K

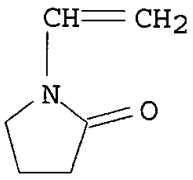
CM 2

CRN 1072-63-5
CMF C5 H6 N2



CM 3

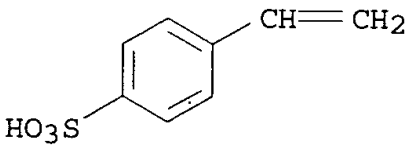
CRN 88-12-0
CMF C6 H9 N O



RN 159105-83-6 HCA
CN Benzenesulfonic acid, 4-ethenyl-, potassium salt, polymer with 1-ethenyl-1H-imidazole (9CI) (CA INDEX NAME)

CM 1

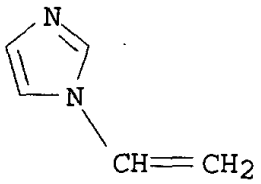
CRN 4551-90-0
CMF C8 H8 O3 S . K



● K

CM 2

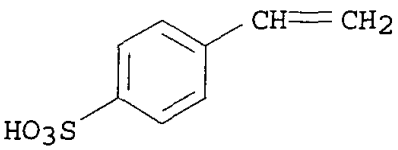
CRN 1072-63-5
CMF C5 H6 N2



RN 163921-06-0 HCA
CN Benzenesulfonic acid, 4-ethenyl-, potassium salt, polymer with 1-ethenyl-1H-imidazole and 1-(2-propenyl)-2-pyrrolidinone (9CI) (CA INDEX NAME)

CM 1

CRN 4551-90-0
CMF C8 H8 O3 S . K



● K

CM 2

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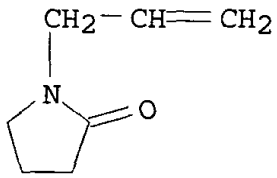
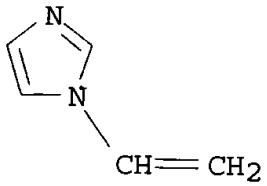
CMF C7 H11 N O



CM 3

CRN 1072-63-5
CMF C5 H6 N2



RN 163921-07-1 HCA
CN Benzenesulfonic acid, 4-ethenyl-, potassium salt, polymer with 1-ethenyl-2-methyl-1H-imidazole and 1-ethenylpiperidine (9CI) (CA INDEX NAME)

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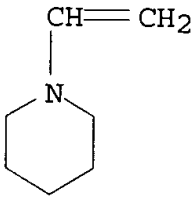
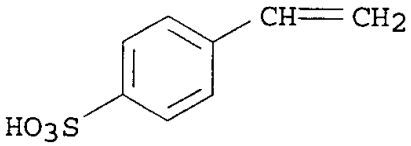
CRN 15311-58-7
CMF C7 H13 N



CM 2

CRN 4551-90-0
CMF C8 H8 O3 S . K



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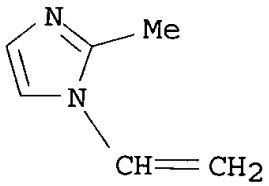
CM 3

CRN 2851-95-8
CMF C6 H8 N2



RN 163921-10-6 HCA
CN Benzenesulfonic acid, 4-(1-chloroethenyl)-, potassium salt, polymer with 1-(1-chloroethenyl)-2-pyrrolidinone and 1-ethenyl-4-methyl-1H-imidazole (9CI) (CA INDEX NAME)

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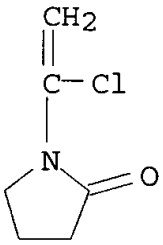
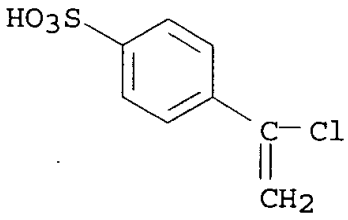
CRN 163921-09-3
CMF C6 H8 Cl N O



CM 2

CRN 163921-08-2
CMF C8 H7 Cl O3 S . K



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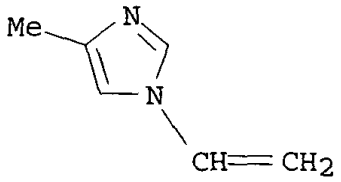
CM 3

CRN 53661-92-0

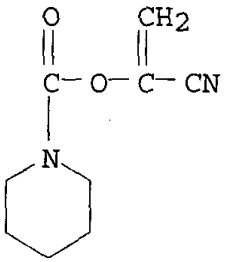
CMF C6 H8 N2



RN 163921-12-8 HCA
CN 1-Piperidinecarboxylic acid, 1-cyanoethenyl ester, polymer with 1-ethenyl-2-methyl-1H-imidazole (9CI) (CA INDEX NAME)

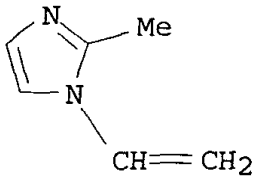
CM 1

CRN 163921-11-7
CMF C9 H12 N2 O2



CM 2

CRN 2851-95-8
CMF C6 H8 N2



RN 163921-14-0 HCA
CN 7-Octen-1-aminium, N,N,N,7-tetramethyl-, bromide, polymer with 1-ethenyl-2-methyl-1H-imidazole (9CI) (CA INDEX NAME)

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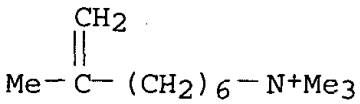
CRN 163921-13-9
CMF C12 H26 N . Br



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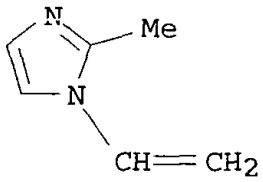
CRN 2851-95-8
CMF C6 H8 N2



RN 163921-15-1 HCA
CN 1H-Imidazolium, 1-ethenyl-3-methyl-, chloride, polymer with 1-ethenyl-2,4-dimethyl-1H-imidazole (9CI) (CA INDEX NAME)

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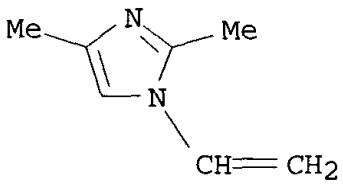
CRN 18253-97-9
CMF C7 H10 N2



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CRN 13474-25-4
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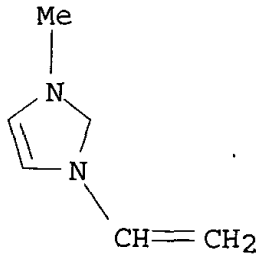
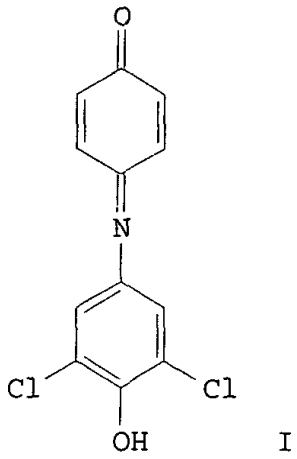


● Cl^-

*** FRAGMENT DIAGRAM IS INCOMPLETE ***
IC ICM B41M005-38
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 41
IT **Inks**
(printing, sublimable, thermal-transfer, thermal-transfer recording materials)
IT 135274-81-6 137999-79-2 163921-16-2 **163921-17-3**
163921-18-4 163921-19-5 163921-20-8 163921-21-9
163921-22-0 163921-23-1 163921-24-2 163921-25-3
163921-26-4 163921-27-5 163967-17-7
(thermal-transferable dyes)
IT **25232-42-2 103437-05-4 159105-83-6**
163921-06-0 163921-07-1 163921-10-6
163921-12-8 163921-14-0 163921-15-1
(vinyl polymers of dye-receiving layer)

L42 ANSWER 2 OF 10 HCA COPYRIGHT 2003 ACS
115:210259 Thermal-transfer printing process. Komamura, Tawara; Masukawa, Toyoaki (Konica Co., Japan). Jpn. Kokai Tokkyo Koho JP 03083685 A2 19910409 Heisei, 9 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1989-222482 19890829.
GI



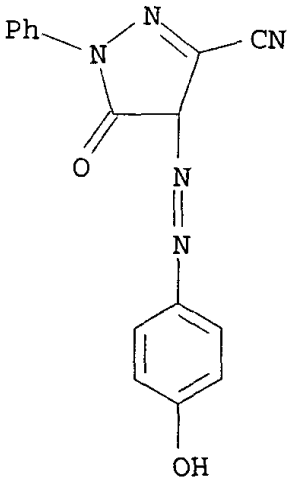
I

AB A process giving prints with good fixing ability involves phenolic OH-contg. colorant-contg. donors and basic compd.- and/or mordant-contg. receivers. Thus, transfer printing from a polyimide film coated with a cyan dye I-contg. **ink** onto a paper coated with a soln. contg. poly(vinylpyrrolidone) and a mordant (copolymer of styrene, divinylbenzene, and CH2:CMeCONHC6H4CH2N+Me2CH2Ph Cl-) gave prints with color d. 1.62 and low retransfer tendency.

IT **136815-31-1**
(colorants, with mordant-contg. receivers, for thermal-transfer printing)

RN 136815-31-1 HCA

CN 1H-Pyrazole-3-carbonitrile, 4,5-dihydro-4-[(4-hydroxyphenyl)azo]-5-oxo-1-phenyl- (9CI) (CA INDEX NAME)



IT **136507-57-8**

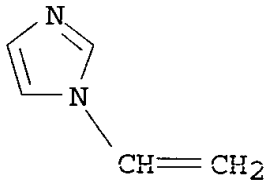
(mordants, receivers contg., with phenolic colorant-contg. donors, for thermal-transfer printing)

RN 136507-57-8 HCA

CN 2-Propenoic acid, butyl ester, polymer with 1-ethenyl-1H-imidazole and 4-ethenylpyridine (9CI) (CA INDEX NAME)

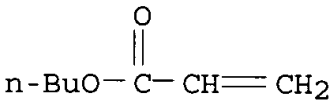
CM 1

CRN 1072-63-5
CMF C5 H6 N2



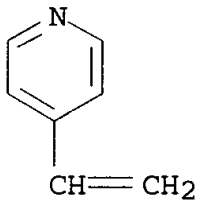
CM 2

CRN 141-32-2
CMF C7 H12 O2



CM 3

CRN 100-43-6
CMF C7 H7 N



IC ICM B41M005-38

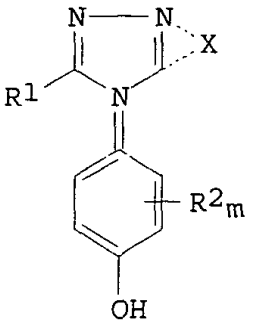
CC 42-2 (Coatings, Inks, and Related Products)

IT 128-94-9 956-48-9 136815-29-7 136815-30-0 **136815-31-1**
(colorants, with mordant-contg. receivers, for thermal-transfer printing)

IT 87338-68-9 136502-84-6 **136507-57-8**
(mordants, receivers contg., with phenolic colorant-contg.

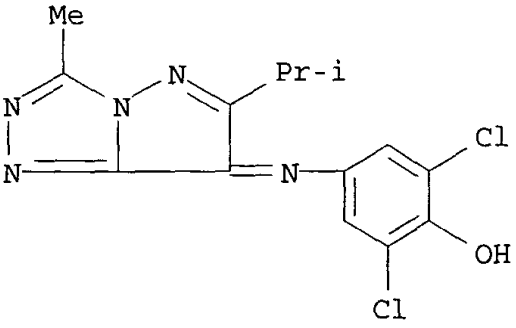
donors, for thermal-transfer printing)

L42 ANSWER 3 OF 10 HCA COPYRIGHT 2003 ACS
115:185559 Thermal-transfer printing media. Komamura, Tawara; Miura, Akio (Konica Co., Japan). Jpn. Kokai Tokkyo Koho JP 03090387 A2 19910416 Heisei, 15 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1989-228601 19890904.
GI



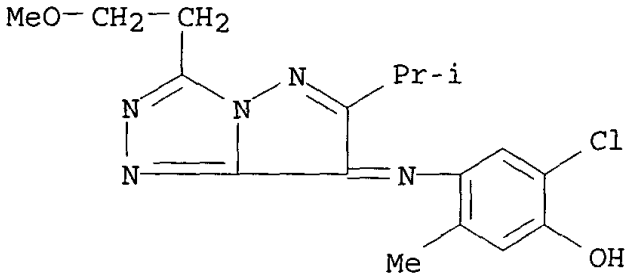
I

AB The title media contain **inks** contg. colorants I [R1, R2 = H, halogen, (cyclo)alkyl, aryl, aralkyl, alkenyl, alkoxy, aryloxy, CN, NH2, MeCO, MeCONH, alkylthio, arylthio, sulfonylamino, ureido, carbamoyl, sulfamoyl, alkoxycarbonyl, aryloxycarbonyl, sulfonyl, X = heterocyclic group residues; m = 1-4]. Thus, I (R1 = iso-Pr, R2 = Cl, X = methylpyrazole residue, m = 2) was used.
IT **136595-11-4 136595-12-5 136595-13-6 136595-14-7 136595-15-8**
(dyes, for thermal-transfer **inks**)
RN 136595-11-4 HCA
CN Phenol, 2,6-dichloro-4-[[3-methyl-6-(1-methylethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]amino]- (9CI) (CA INDEX NAME)

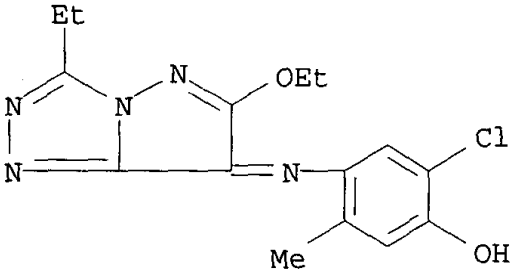


RN 136595-12-5 HCA
CN Phenol, 2-chloro-4-[[3-(2-methoxyethyl)-6-(1-methylethyl)-7H-

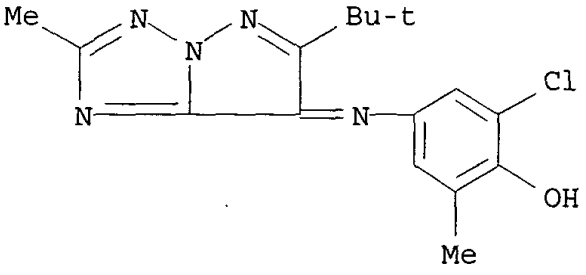
pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]amino]-5-methyl- (9CI) (CA INDEX NAME)



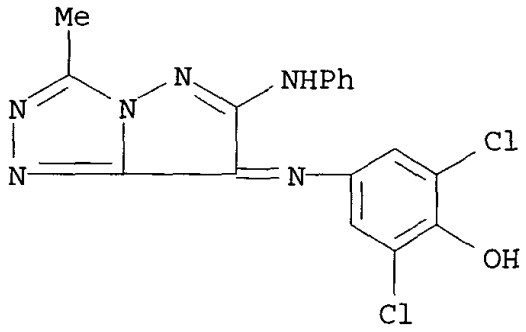
RN 136595-13-6 HCA
CN Phenol, 2-chloro-4-[(6-ethoxy-3-ethyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene)amino]-5-methyl- (9CI) (CA INDEX NAME)



RN 136595-14-7 HCA
CN Phenol, 2-chloro-4-[[6-(1,1-dimethylethyl)-2-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]-6-methyl- (9CI) (CA INDEX NAME)



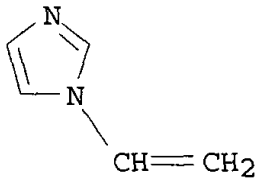
RN 136595-15-8 HCA
CN Phenol, 2,6-dichloro-4-[[3-methyl-6-(phenylamino)-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]amino]- (9CI) (CA INDEX NAME)



IT **136507-57-8**
(mordant, receivers contg., for thermal-transfer media)
RN 136507-57-8 HCA
CN 2-Propenoic acid, butyl ester, polymer with 1-ethenyl-1H-imidazole and 4-ethenylpyridine (9CI) (CA INDEX NAME)

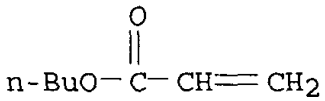
CM 1

CRN 1072-63-5
CMF C5 H6 N2



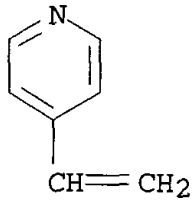
CM 2

CRN 141-32-2
CMF C7 H12 O2



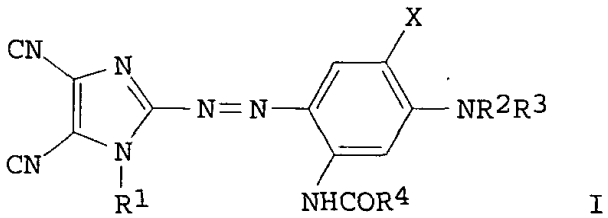
CM 3

CRN 100-43-6
CMF C7 H7 N



IC ICM B41M005-38
CC 42-12 (Coatings, Inks, and Related Products)
Section cross-reference(s): 41 .
IT Dyes
(hydroxyanilinopyrazole derivs., for thermal-transfer **inks**)
IT **Inks**
(printing, thermal-transfer, contg. hydroxyanilinopyrazole deriv. dyes)
IT **136595-11-4 136595-12-5 136595-13-6 136595-14-7 136595-15-8**
(dyes, for thermal-transfer **inks**)
IT 87338-68-9 136502-84-6 **136507-57-8**
(mordant, receivers contg., for thermal-transfer media)

L42 ANSWER 4 OF 10 HCA COPYRIGHT 2003 ACS
114:124596 Thermal-transfer printing by using **dicyanoimidazolyl** anilino azo sublimation dye. Murata, Jukichi (Mitsubishi Kasei Corp., Japan). Jpn. Kokai Tokkyo Koho JP 02241784 A2 19900926 Heisei, 11 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1989-64686 19890315.
GI



I

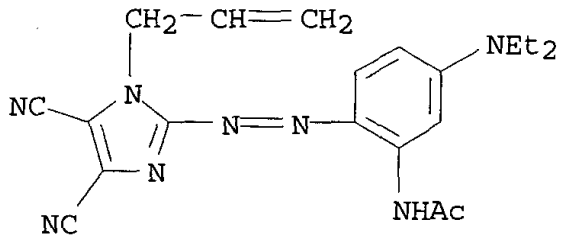
AB A support is patternwise printed by an **ink** contg. an azo sublimation dye I [R1-3 = H, (substituted) alkyl, cycloalkyl, allyl, (substituted) phenyl; X = H, alkyl, alkoxy, halo; R4 = H, alkyl, CF3, alkoxy, (substituted) Ph, (substituted) vinyl], laminated with an **ink**-accepting resin material, and heated to give a transfer-printed product. Thus, an **ink** contg. I (R1= Bu; R2 = CH2CHEtBu; R3 = H; R4, X = Me), ethylcellulose, iso-Pr alc., methyl Cellosolve, and toluene was gravure-printed onto a coated

paper to give the title transfer sheet, which was laminated with a PET sheet and hot-pressed at lower temp. than the conventional process to give a clear magenta-colored printed product.

IT **57563-08-3 57601-40-8 107688-91-5 107689-03-2 132717-17-0 132717-18-1 132717-19-2 132717-20-5 132717-21-6 132717-22-7 132717-23-8 132717-24-9 132717-25-0 132717-26-1 132717-27-2 132717-28-3 132717-29-4 132717-30-7 132717-31-8 132717-32-9 132717-33-0 132717-34-1 132717-35-2 132733-66-5**
(thermal-transfer sublimation dye, for nonimpact low temp.-printable **ink**)

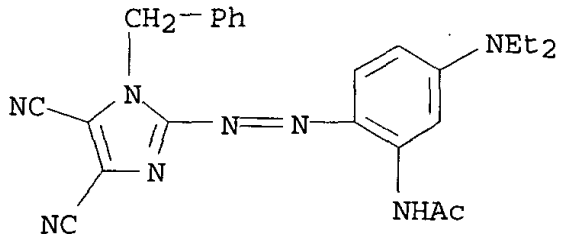
RN 57563-08-3 HCA

CN Acetamide, N-[2-[[4,5-dicyano-1-(2-propenyl)-1H-imidazol-2-yl]azo]-5-(diethylamino)phenyl]- (9CI) (CA INDEX NAME)



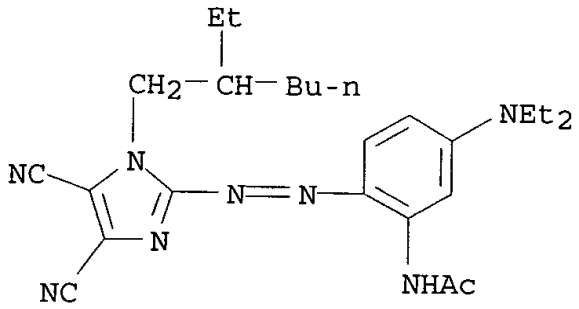
RN 57601-40-8 HCA

CN Acetamide, N-[2-[[4,5-dicyano-1-(phenylmethyl)-1H-imidazol-2-yl]azo]-5-(diethylamino)phenyl]- (9CI) (CA INDEX NAME)

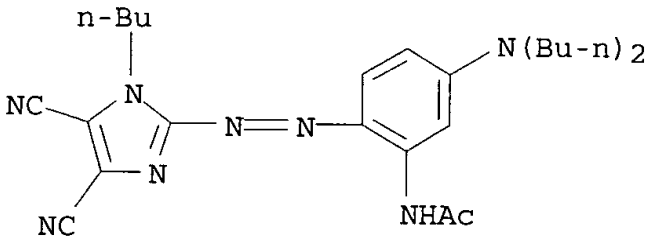


RN 107688-91-5 HCA

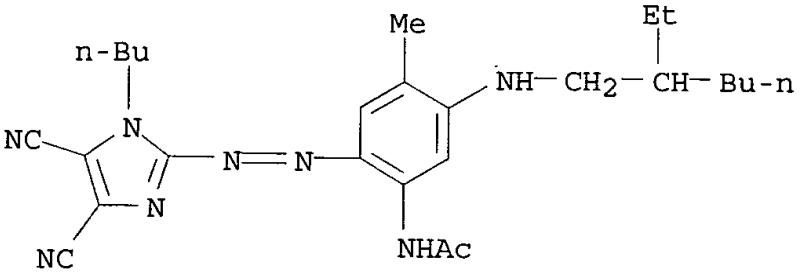
CN Acetamide, N-[2-[[4,5-dicyano-1-(2-ethylhexyl)-1H-imidazol-2-yl]azo]-5-(diethylamino)phenyl]- (9CI) (CA INDEX NAME)



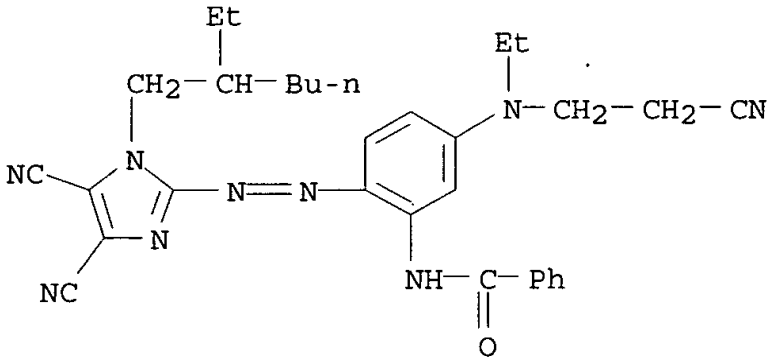
RN 107689-03-2 HCA
CN Acetamide, N-[2-[(1-butyl-4,5-dicyano-1H-imidazol-2-yl)azo]-5-(dibutylamino)phenyl]- (9CI) (CA INDEX NAME)



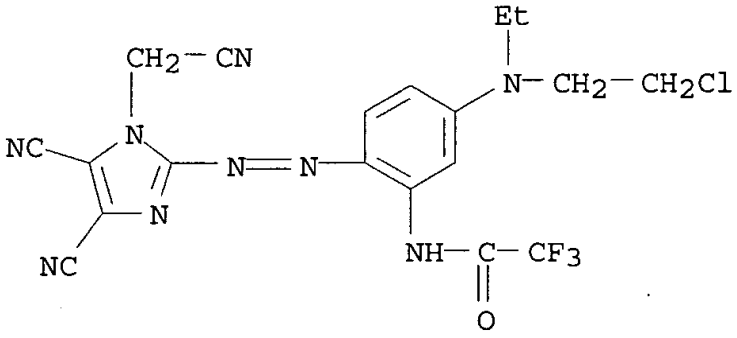
RN 132717-17-0 HCA
CN Acetamide, N-[2-[(1-butyl-4,5-dicyano-1H-imidazol-2-yl)azo]-5-[(2-ethylhexyl)amino]-4-methylphenyl]- (9CI) (CA INDEX NAME)



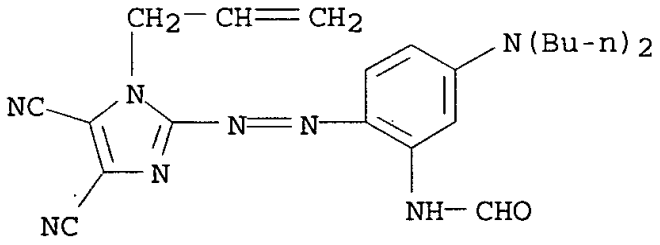
RN 132717-18-1 HCA
CN Benzamide, N-[5-[(2-cyanoethyl)ethylamino]-2-[[4,5-dicyano-1-(2-ethylhexyl)-1H-imidazol-2-yl]azo]phenyl]- (9CI) (CA INDEX NAME)



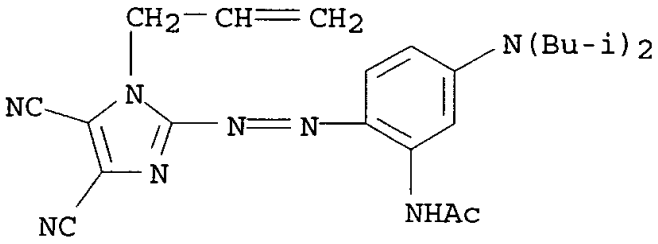
RN 132717-19-2 HCA
CN Acetamide, N-[5-[(2-chloroethyl)ethylamino]-2-[[4,5-dicyano-1-(cyanomethyl)-1H-imidazol-2-yl]azo]phenyl]-2,2,2-trifluoro- (9CI) (CA INDEX NAME)



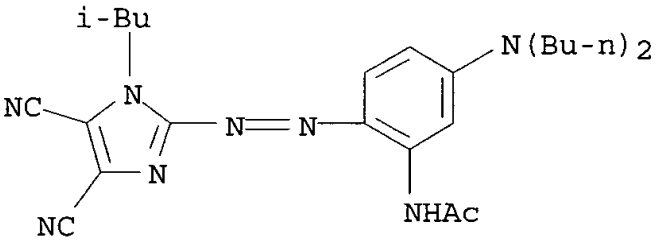
RN 132717-20-5 HCA
CN Formamide, N-[5-(dibutylamino)-2-[[4,5-dicyano-1-(2-propenyl)-1H-imidazol-2-yl]azo]phenyl]- (9CI) (CA INDEX NAME)



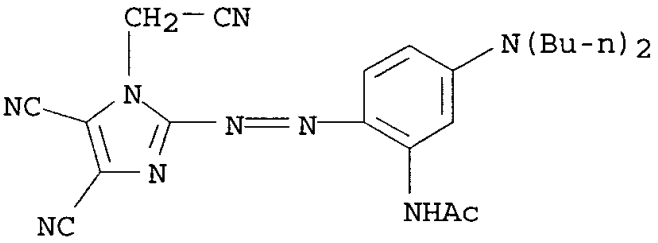
RN 132717-21-6 HCA
CN Acetamide, N-[5-[bis(2-methylpropyl)amino]-2-[[4,5-dicyano-1-(2-propenyl)-1H-imidazol-2-yl]azo]phenyl]- (9CI) (CA INDEX NAME)



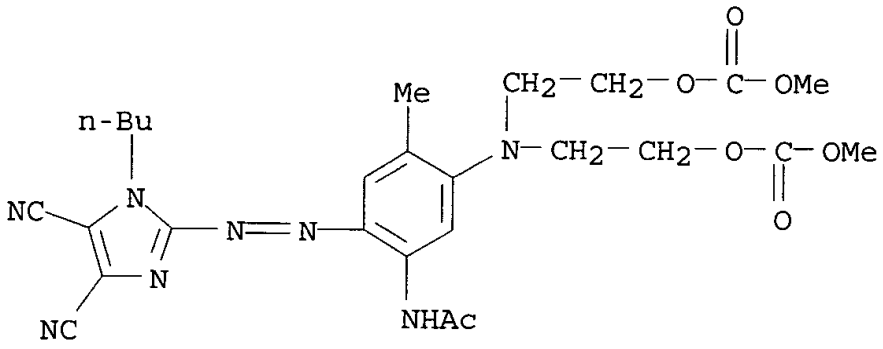
RN 132717-22-7 HCA
CN Acetamide, N-[5-(dibutylamino)-2-[[4,5-dicyano-1-(2-methylpropyl)-1H-imidazol-2-yl]azo]phenyl]- (9CI) (CA INDEX NAME)



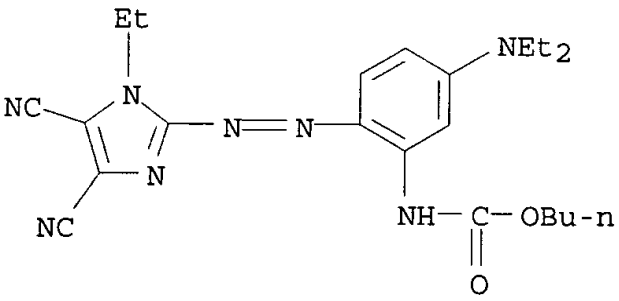
RN 132717-23-8 HCA
CN Acetamide, N-[5-(dibutylamino)-2-[[4,5-dicyano-1-(cyanomethyl)-1H-imidazol-2-yl]azo]phenyl]- (9CI) (CA INDEX NAME)



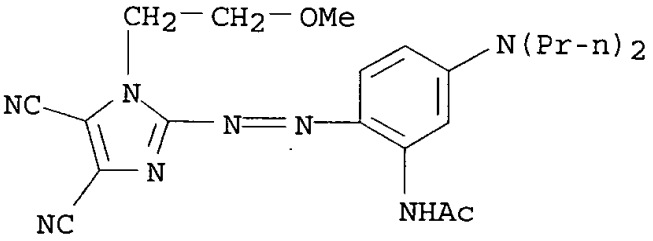
RN 132717-24-9 HCA
CN 2,4,10-Trioxa-7-azaundecan-11-oic acid, 7-[5-(acetylamino)-4-[(1-butyl-4,5-dicyano-1H-imidazol-2-yl)azo]-2-methylphenyl]-3-oxo-, methyl ester (9CI) (CA INDEX NAME)



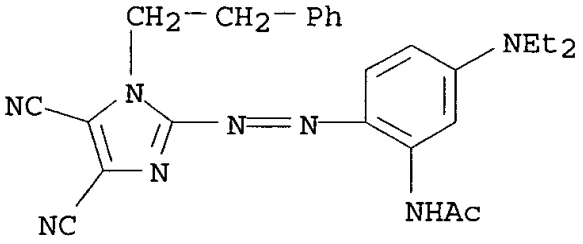
RN 132717-25-0 HCA
CN Carbamic acid, [2-[(4,5-dicyano-1-ethyl-1H-imidazol-2-yl)azo]-5-(diethylamino)phenyl]-, butyl ester (9CI) (CA INDEX NAME)



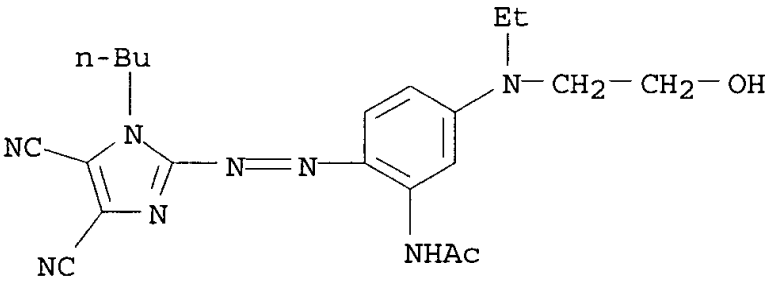
RN 132717-26-1 HCA
CN Acetamide, N-[2-[[4,5-dicyano-1-(2-methoxyethyl)-1H-imidazol-2-yl]azo]-5-(dipropylamino)phenyl]- (9CI) (CA INDEX NAME)



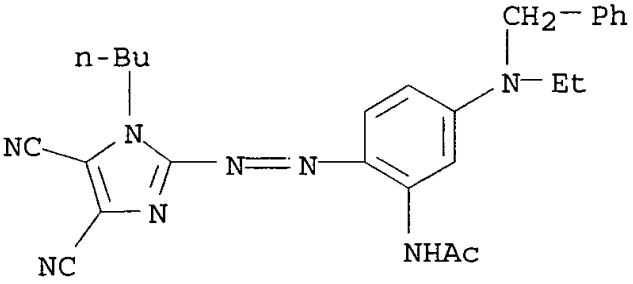
RN 132717-27-2 HCA
CN Acetamide, N-[2-[[4,5-dicyano-1-(2-phenylethyl)-1H-imidazol-2-yl]azo]-5-(diethylamino)phenyl]- (9CI) (CA INDEX NAME)



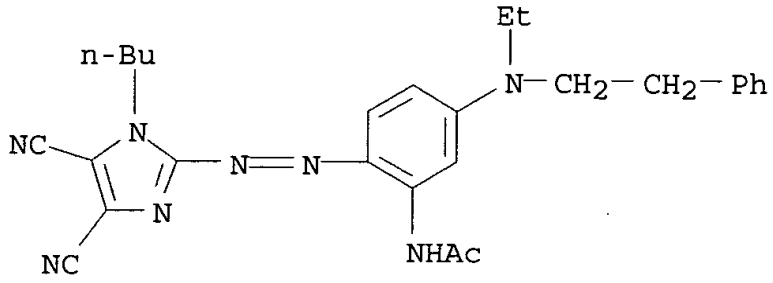
RN 132717-28-3 HCA
CN Acetamide, N-[2-[(1-butyl-4,5-dicyano-1H-imidazol-2-yl)azo]-5-[ethyl(2-hydroxyethyl)amino]phenyl]- (9CI) (CA INDEX NAME)



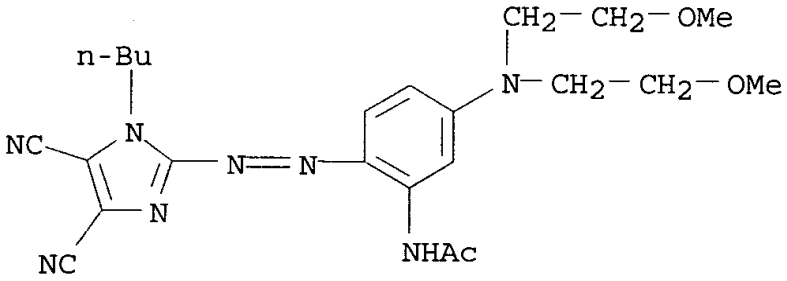
RN 132717-29-4 HCA
CN Acetamide, N-[2-[(1-butyl-4,5-dicyano-1H-imidazol-2-yl)azo]-5-[ethyl(phenylmethyl)amino]phenyl]- (9CI) (CA INDEX NAME)



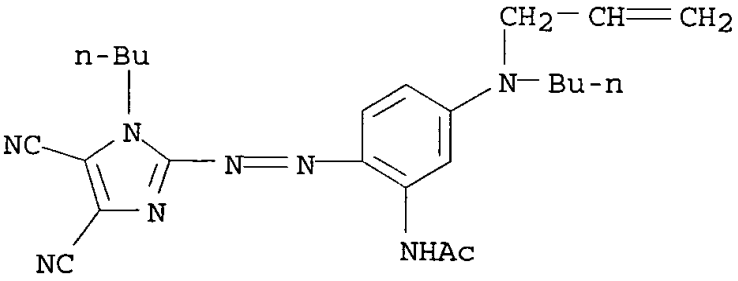
RN 132717-30-7 HCA
CN Acetamide, N-[2-[(1-butyl-4,5-dicyano-1H-imidazol-2-yl)azo]-5-[ethyl(2-phenylethyl)amino]phenyl]- (9CI) (CA INDEX NAME)



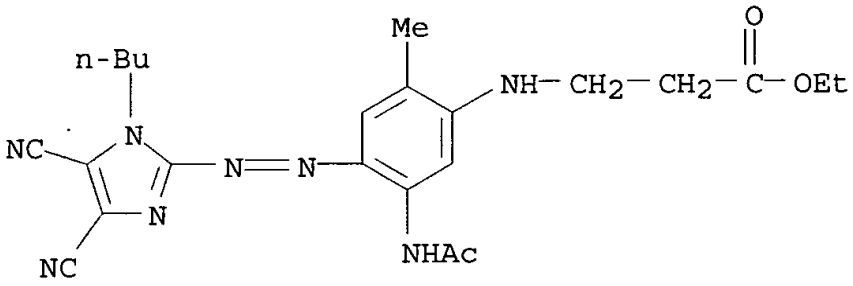
RN 132717-31-8 HCA
CN Acetamide, N-[5-[bis(2-methoxyethyl)amino]-2-[(1-butyl-4,5-dicyano-1H-imidazol-2-yl)azo]phenyl]- (9CI) (CA INDEX NAME)



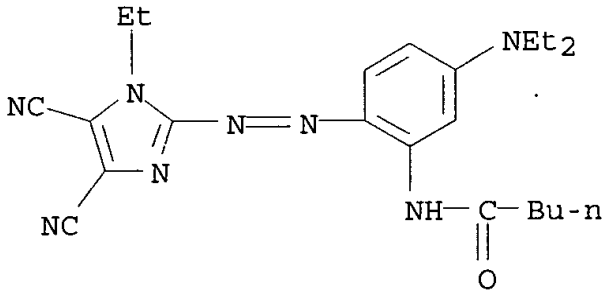
RN 132717-32-9 HCA
CN Acetamide, N-[2-[(1-butyl-4,5-dicyano-1H-imidazol-2-yl)azo]-5-(butyl-2-propenylamino)phenyl]- (9CI) (CA INDEX NAME)



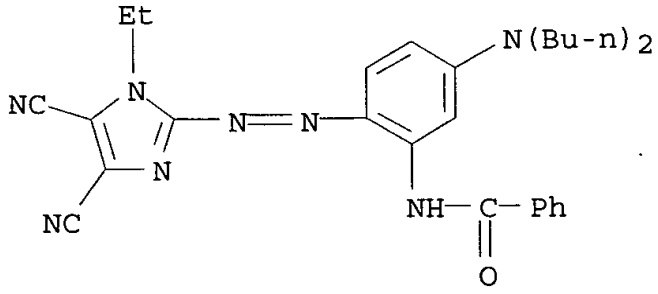
RN 132717-33-0 HCA
CN .beta.-Alanine, N-[5-(acetylamino)-4-[(1-butyl-4,5-dicyano-1H-imidazol-2-yl)azo]-2-methylphenyl]-, ethyl ester (9CI) (CA INDEX NAME)



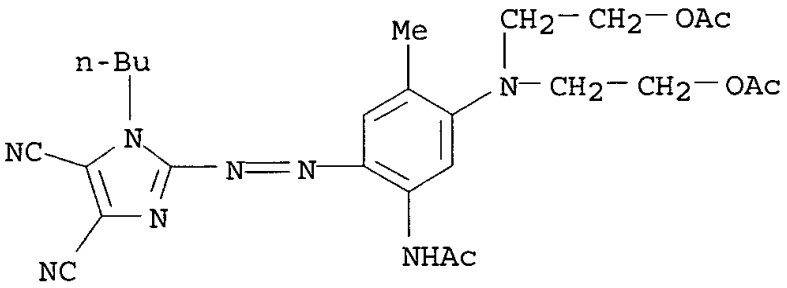
RN 132717-34-1 HCA
CN Pentanamide, N-[2-[(4,5-dicyano-1-ethyl-1H-imidazol-2-yl)azo]-5-(diethylamino)phenyl]- (9CI) (CA INDEX NAME)



RN 132717-35-2 HCA
CN Benzamide, N-[5-(dibutylamino)-2-[(4,5-dicyano-1-ethyl-1H-imidazol-2-yl)azo]phenyl]- (9CI) (CA INDEX NAME)



RN 132733-66-5 HCA
CN Acetamide, N-[5-[bis[2-(acetyloxy)ethyl]amino]-2-[(1-butyl-4,5-dicyano-1H-imidazol-2-yl)azo]-4-methylphenyl]- (9CI) (CA INDEX NAME)



IC ICM B41M003-12
ICS C09D011-00; C09D011-02
CC 42-2 (Coatings, Inks, and Related Products)
Section cross-reference(s): 74
ST thermal transfer printing sublimation dye; azo **cyanoimidazolyl** anilino dye sublimation; low temp transfer printing **ink**
IT Polycarbonates, uses and miscellaneous
(thermal-transfer sublimation dye-accepting sheet, **dicyanoimidazolyl** anilino azo dye for)
IT Polyesters, uses and miscellaneous
(arom., thermal-transfer sublimation dye-accepting sheet, **dicyanoimidazolyl** anilino azo dye for)
IT Printing, nonimpact
(thermal-transfer, low-temp., **dicyanoimidazolyl** anilino azo dye in)
IT **57563-08-3 57601-40-8 107688-91-5**
107689-03-2 132717-17-0 132717-18-1
132717-19-2 132717-20-5 132717-21-6
132717-22-7 132717-23-8 132717-24-9
132717-25-0 132717-26-1 132717-27-2
132717-28-3 132717-29-4 132717-30-7
132717-31-8 132717-32-9 132717-33-0
132717-34-1 132717-35-2 132733-66-5
(thermal-transfer sublimation dye, for nonimpact low temp.-printable **ink**)
IT 108-95-2D, Phenol, polymers 24968-12-5, Poly(butylene terephthalate) 25038-59-9, PET, uses and miscellaneous 26062-94-2, Butylene glycol-terephthalic acid copolymer
(thermal-transfer sublimation dye-accepting sheet, **dicyanoimidazolyl** anilino azo dye for)

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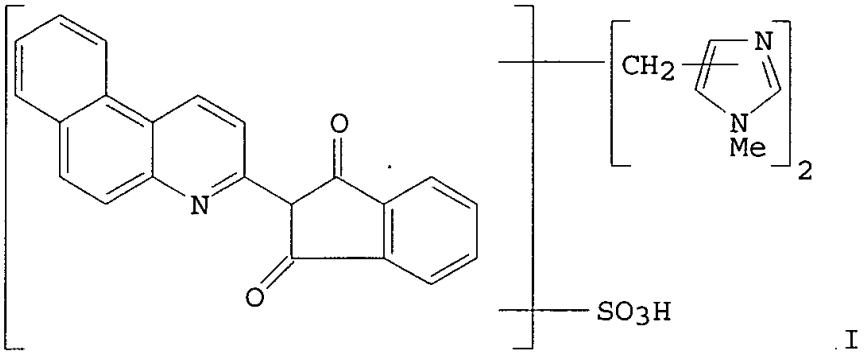
112:160750 **Jet-printing inks** containing dyes having aminomethyl or **imidazolylmethyl** groups.
Mayer, Udo; Bruder, Horst; Ruske, Manfred (BASF A.-G., Fed. Rep. Ger.). Eur. Pat. Appl. EP 335237 A2 19891004, 8 pp. DESIGNATED STATES: R: CH, DE, ES, FR, GB, IT, LI. (German). CODEN: EPXXDW. APPLICATION: EP 1989-105094 19890322. PRIORITY: DE 1988-3810958 19880331.

GI



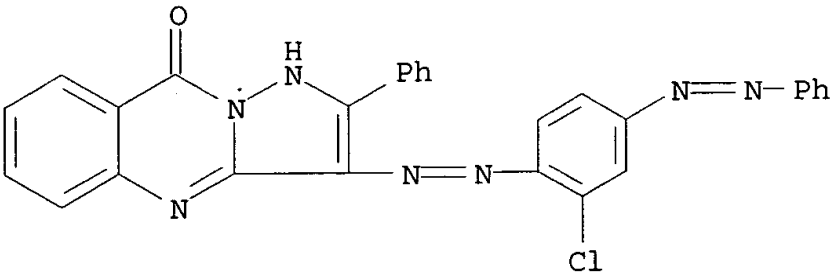
I

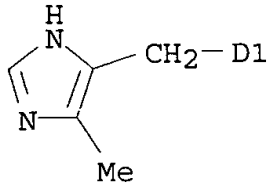
AB Water-thinnable, **jet-printing inks** that produce water- and smear-resistant prints contained azo, quinophthalone, bisdioxazine, 2,7-diphenylxanthene or Cu phthalocyanine dyes with imidazole, aminoalkylcarbonylaminomethyl, or aminomethyl groups. Thus, an **ink** contg. 3.5% dye I and a 6:3:1 water-DEG-N-methylpyrrolidone solvent produced yellow print on paper that did not smear when rubbed with a moist finger or a text marker.

IT **126169-36-6 126169-37-7**
(**inks** contg., **jet-printing**, org. solvent-water-thinned, moisture and smear-resistant)

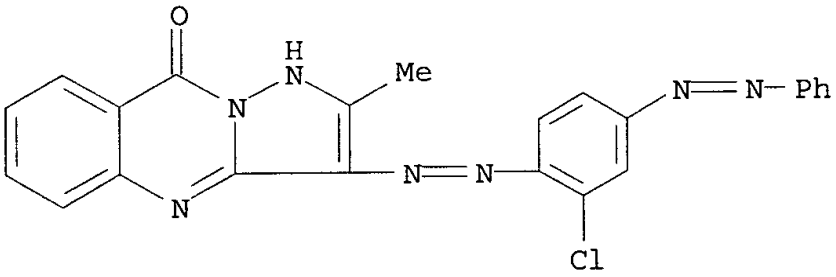
RN 126169-36-6 HCA

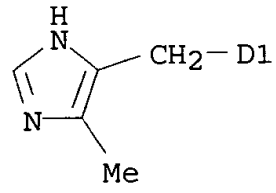
CN Pyrazolo[5,1-b]quinazolin-9(1H)-one, 3-[[2-chloro-4-(phenylazo)phenyl]azo]-2-phenyl-, mono[(5-methyl-1H-imidazol-4-yl)methyl] deriv. (9CI) (CA INDEX NAME)





RN 126169-37-7 HCA
CN Pyrazolo[5,1-b]quinazolin-9(1H)-one, 3-[[2-chloro-4-(phenylazo)phenyl]azo]-2-methyl-, mono[(5-methyl-1H-imidazol-4-yl)methyl] deriv. (9CI) (CA INDEX NAME)

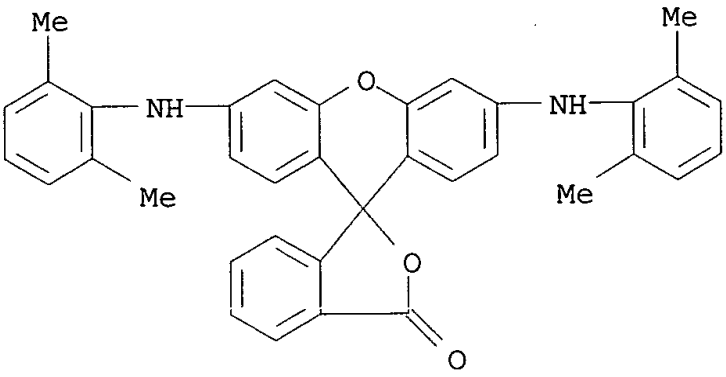




IT **126338-01-0 126389-91-1**
(oligomeric, **inks** contg., **jet-printing**, org. solvent-water-thinned, moisture- and smear-resistant)
RN 126338-01-0 HCA
CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3',6'-bis[(2,6-dimethylphenyl)amino]-, polymer with 2-phenyl-1H-imidazole-4,5-dimethanol (9CI) (CA INDEX NAME)

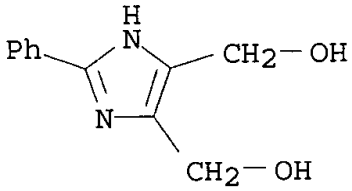
CM 1

CRN 84373-11-5
CMF C36 H30 N2 O3



CM 2

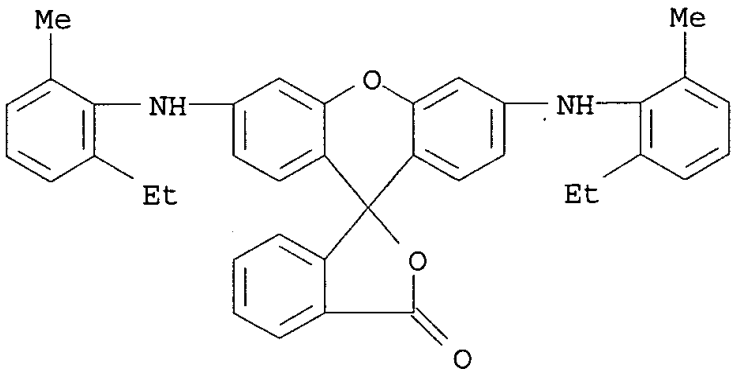
CRN 61698-32-6
CMF C11 H12 N2 O2



RN 126389-91-1 HCA
CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3',6'-bis[(2-ethyl-6-methylphenyl)amino]-, polymer with 2-phenyl-1H-imidazole-4,5-dimethanol (9CI) (CA INDEX NAME)

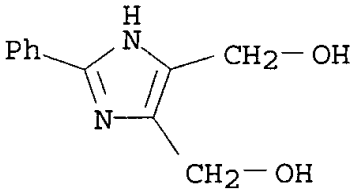
CM 1

CRN 84373-12-6
CMF C38 H34 N2 O3



CM 2

CRN 61698-32-6
CMF C11 H12 N2 O2



IC ICM C09D011-00
CC 42-12 (Coatings, Inks, and Related Products)
ST water thinnable **jet printing ink**; smear resistant **jet printing ink**; azo dye **jet printing ink**; quinophthalone dye **jet printing ink**; bisdioxazine dye **jet printing ink**; xanthene dye **jet printing ink**; copper phthalocyanine dye printing **ink**; imidazole group dye printing **ink** ; aminoalkylcarbonylaminomethyl group dye printing **ink**; aminomethyl group dye printing **ink**; benzoquinoline deriv dye printing **ink**; indandione deriv dye printing **ink**
IT Dyes
(aminomethyl and imidazoloylmethyl group-contg., for moisture- and smear-resistant org. solvent-water-thinned **jet-printing inks**)
IT **Inks**
(**jet-printing**, smearproof, water-resistant, water-thinned, contg. dyes with aminomethyl or imidazoloylmethyl groups)
IT 126169-51-5
(**inks** contg., **jet-printing**, org.

solvent-water-thinned moisture- and smear-resistant)

IT 50-00-0D, Formaldehyde, reaction products with methylimidazole and xanthene dye 822-36-6D, 4-Methylimidazole, reaction products with formaldehyde and xanthene dye 126169-35-5 **126169-36-6** **126169-37-7** 126169-38-8 126169-39-9 126169-40-2 126169-41-3 126205-47-8D, reaction products with formaldehyde and methylimidazole
(**inks** contg., **jet-printing**, org. solvent-water-thinned, moisture and smear-resistant)

IT 147-14-8D, Copper phthalocyanine, reaction products with ethylimidazole salts with zinc chloride 7098-07-9D, 1-Ethylimidazole, reaction products with copper phthalocyanine, salts with zinc chloride 7646-85-7D, Zinc chloride, salts with copper phthalocyanine-ethylimidazole reaction products 66333-13-9D, sulfo derivs. 68155-71-5D, aminomethylated 68155-72-6D, aminomethylated 83826-67-9 85621-11-0
(**inks** contg., **jet-printing**, org. solvent-water-thinned, moisture- and smear-resistant)

IT **126338-01-0** **126389-91-1**
(oligomeric, **inks** contg., **jet-printing**, org. solvent-water-thinned, moisture- and smear-resistant)

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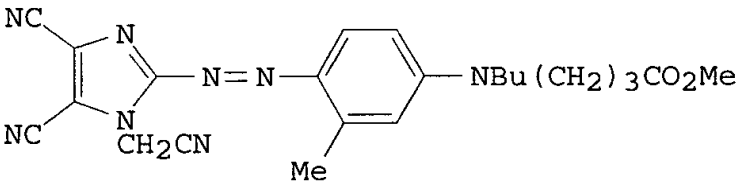
107:144964 Thermal-transfer printing sheets. (Imperial Chemical Industries PLC, UK). Jpn. Kokai Tokkyo Koho JP 62055194 A2 19870310 Showa, 13 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1986-199186 19860827. PRIORITY: GB 1985-21327 19850827.

GI



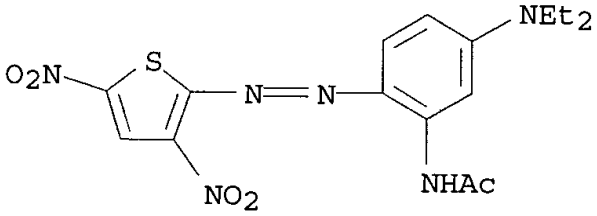
I

AB The title sheets are coated with azo dyes of the formula AN:NE, A = heteroarom. ANH2 residual groups, such as **imidazolyl**, pyrazolyl, thiazolyl, benzothiazolyl, isothiazolyl, benzoisothiazolyl, pyridoisothiazolyl, and thienyl; E = arom. coupling component EX residual groups, optionally substituted aminophenyl, tetrahydroquinolinyl, julolidyl or aminoquinolinyl. Thus, a poly(ethylene terephthalate) sheet was coated with an **ink** contg. I to give a thermal-transfer sheet.

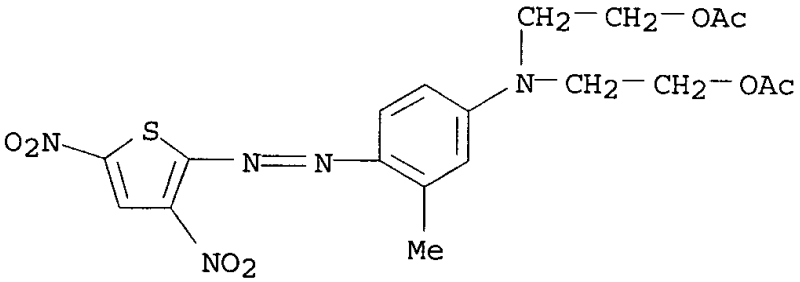
IT **58979-46-7** **68110-29-2** **70693-64-0** **70865-21-3** **72537-33-8** **76265-99-1** **78473-28-6** **88779-60-6** **88779-71-9** **88779-92-4** **102301-05-3** **102301-07-5**

110260-18-9 110260-19-0 110260-20-3
110260-21-4 110260-22-5 110260-23-6
110260-24-7 110260-25-8 110260-26-9
110260-27-0 110260-28-1 110260-29-2
110260-30-5 110260-31-6 110260-32-7
110260-33-8 110260-34-9 110260-35-0
110260-36-1 110260-37-2 110260-38-3
110260-39-4 110260-40-7 110260-41-8
110260-42-9 110260-43-0 110260-44-1
110260-45-2 110260-46-3 110260-47-4
110260-48-5 110260-49-6 110260-50-9
110260-51-0 110260-52-1 110260-53-2
110260-54-3 110260-55-4 110260-56-5
110260-57-6 110260-58-7 110260-59-8
110260-60-1 110260-61-2 110260-62-3
110260-63-4 110260-64-5 110260-65-6
110260-66-7 110282-40-1
(dyes, for thermal transfer **inks**)

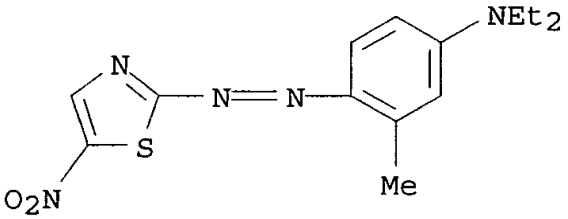
RN 58979-46-7 HCA
CN Acetamide, N-[5-(diethylamino)-2-[(3,5-dinitro-2-thienyl)azo]phenyl]- (9CI) (CA INDEX NAME)



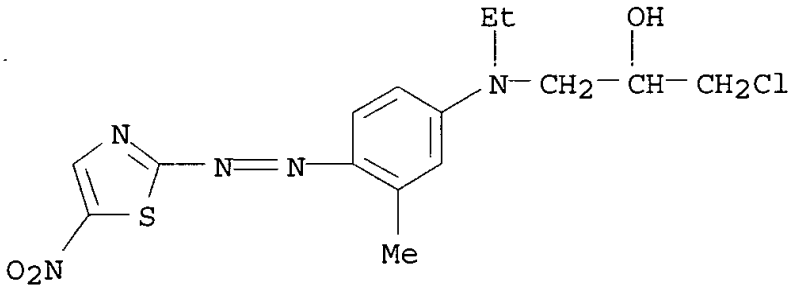
RN 68110-29-2 HCA
CN Ethanol, 2,2'-[[4-[(3,5-dinitro-2-thienyl)azo]-3-methylphenyl]imino]bis-, diacetate (ester) (9CI) (CA INDEX NAME)



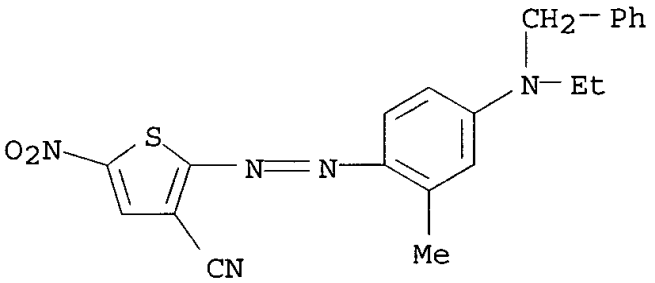
RN 70693-64-0 HCA
CN Benzenamine, N,N-diethyl-3-methyl-4-[(5-nitro-2-thiazolyl)azo]- (9CI) (CA INDEX NAME)



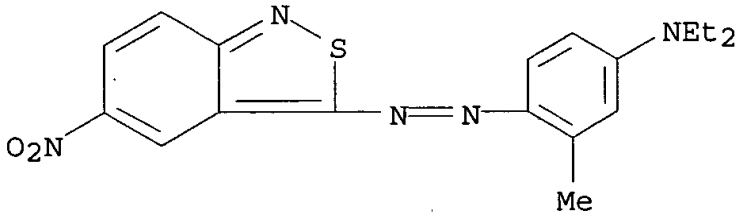
RN 70865-21-3 HCA
CN 2-Propanol, 1-chloro-3-[ethyl[3-methyl-4-[(5-nitro-2-thiazolyl)azo]phenyl]amino]- (9CI) (CA INDEX NAME)



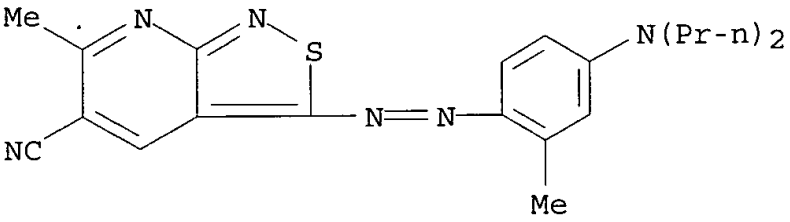
RN 72537-33-8 HCA
CN 3-Thiophenecarbonitrile, 2-[[4-[ethyl(phenylmethyl)amino]-2-methylphenyl]azo]-5-nitro- (9CI) (CA INDEX NAME)



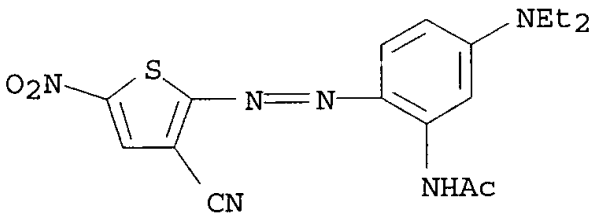
RN 76265-99-1 HCA
CN Benzenamine, N,N-diethyl-3-methyl-4-[(5-nitro-2,1-benzisothiazol-3-yl)azo]- (9CI) (CA INDEX NAME)



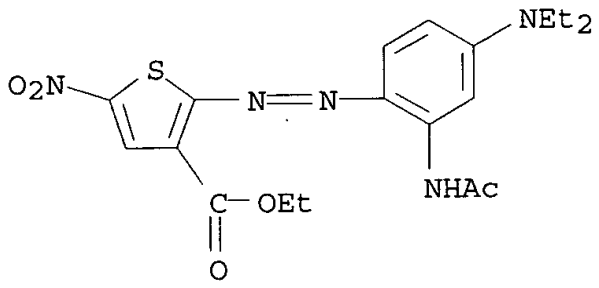
RN 78473-28-6 HCA
CN Isothiazolo[3,4-b]pyridine-5-carbonitrile, 3-[[4-(dipropylamino)-2-methylphenyl]azo]-6-methyl- (9CI) (CA INDEX NAME)



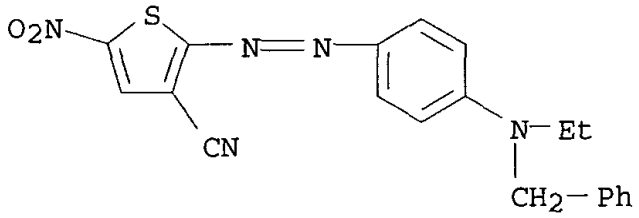
RN 88779-60-6 HCA
CN Acetamide, N-[2-[(3-cyano-5-nitro-2-thienyl)azo]-5-(diethylamino)phenyl]- (9CI) (CA INDEX NAME)



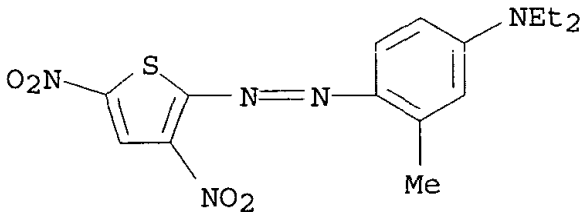
RN 88779-71-9 HCA
CN 3-Thiophenecarboxylic acid, 2-[[2-(acetylamino)-4-(diethylamino)phenyl]azo]-5-nitro-, ethyl ester (9CI) (CA INDEX NAME)



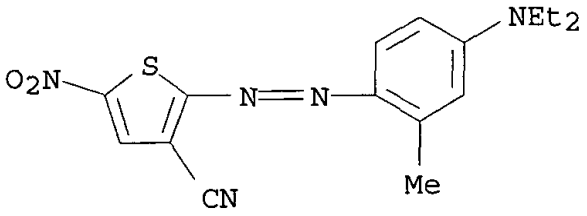
RN 88779-92-4 HCA
CN 3-Thiophenecarbonitrile, 2-[[4-[ethyl(phenylmethyl)amino]phenyl]azo]-5-nitro- (9CI) (CA INDEX NAME)



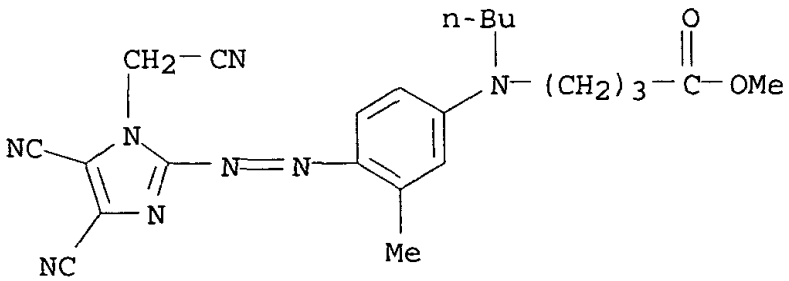
RN 102301-05-3 HCA
CN Benzenamine, 4-[(3,5-dinitro-2-thienyl)azo]-N,N-diethyl-3-methyl- (9CI) (CA INDEX NAME)



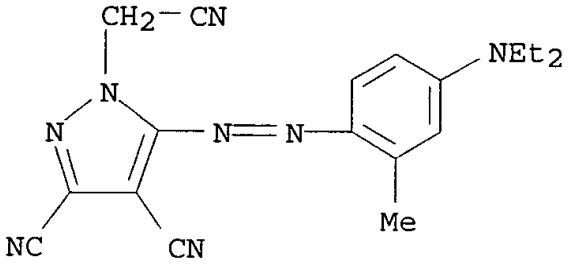
RN 102301-07-5 HCA
CN 3-Thiophenecarbonitrile, 2-[[4-(diethylamino)-2-methylphenyl]azo]-5-nitro- (9CI) (CA INDEX NAME)



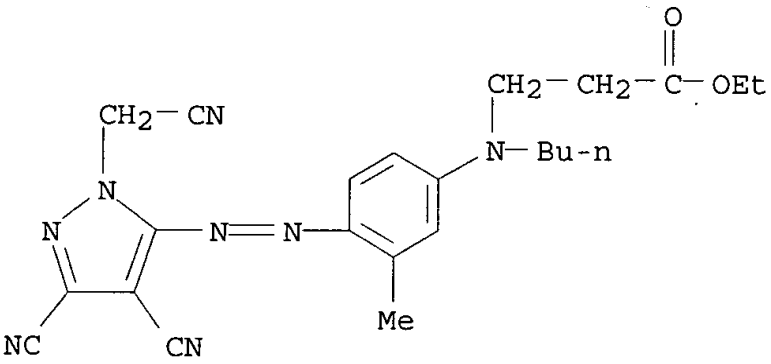
RN 110260-18-9 HCA
CN Butanoic acid, 4-[butyl[4-[[4,5-dicyano-1-(cyanomethyl)-1H-imidazol-2-yl]azo]-3-methylphenyl]amino]-, methyl ester (9CI) (CA INDEX NAME)



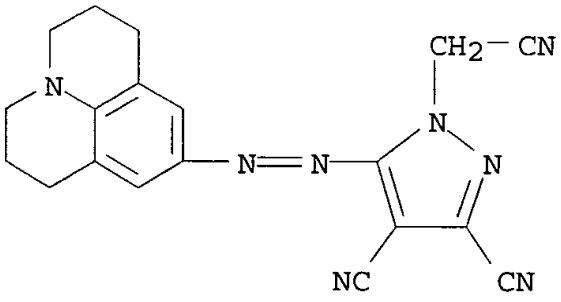
RN 110260-19-0 HCA
CN 1H-Pyrazole-3,4-dicarbonitrile, 1-(cyanomethyl)-5-[[4-(diethylamino)-2-methylphenyl]azo]- (9CI) (CA INDEX NAME)



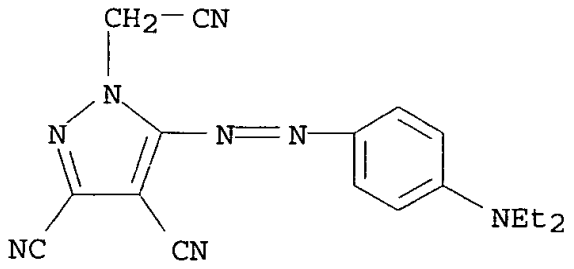
RN 110260-20-3 HCA
CN .beta.-Alanine, N-butyl-N-[4-[[3,4-dicyano-1-(cyanomethyl)-1H-pyrazol-5-yl]azo]-3-methylphenyl]-, ethyl ester (9CI) (CA INDEX NAME)



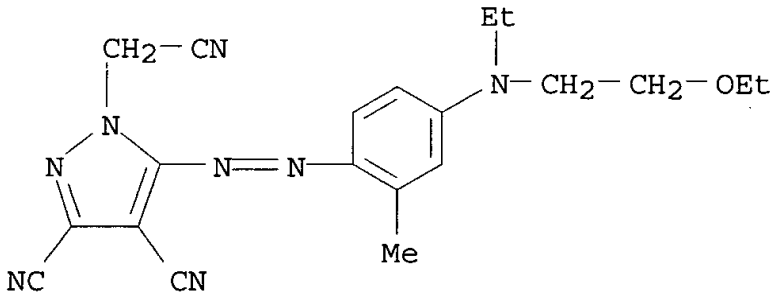
RN 110260-21-4 HCA
CN 1H-Pyrazole-3,4-dicarbonitrile, 1-(cyanomethyl)-5-[(2,3,6,7-tetrahydro-1H,5H-benzo[ij]quinolizin-9-yl)azo]- (9CI) (CA INDEX NAME)



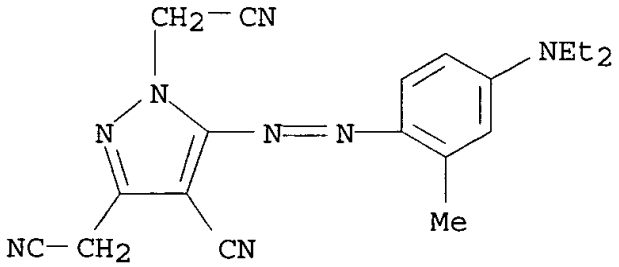
RN 110260-22-5 HCA
CN 1H-Pyrazole-3,4-dicarbonitrile, 1-(cyanomethyl)-5-[[4-(diethylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



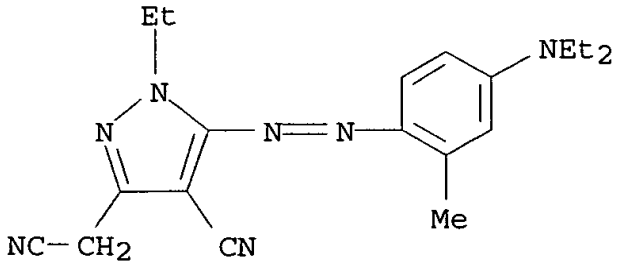
RN 110260-23-6 HCA
CN 1H-Pyrazole-3,4-dicarbonitrile, 1-(cyanomethyl)-5-[[4-[(2-ethoxyethyl)ethylamino]-2-methylphenyl]azo]- (9CI) (CA INDEX NAME)



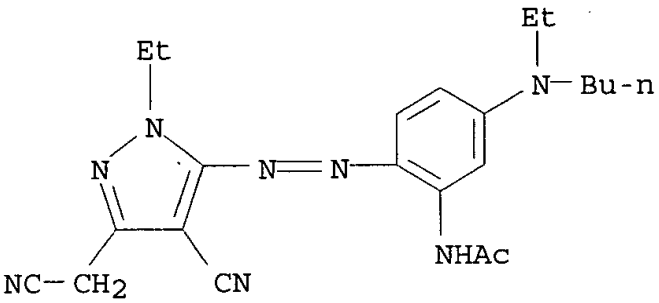
RN 110260-24-7 HCA
CN 1H-Pyrazole-1,3-diacetonitrile, 4-cyano-5-[[4-(diethylamino)-2-methylphenyl]azo]- (9CI) (CA INDEX NAME)



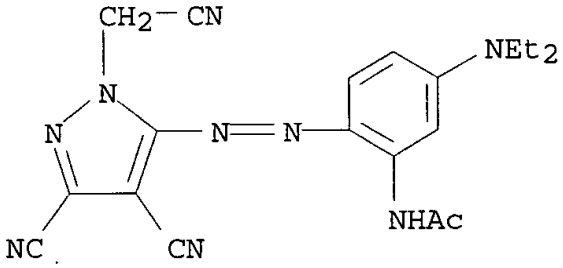
RN 110260-25-8 HCA
CN 1H-Pyrazole-3-acetonitrile, 4-cyano-5-[[4-(diethylamino)-2-methylphenyl]azo]-1-ethyl- (9CI) (CA INDEX NAME)



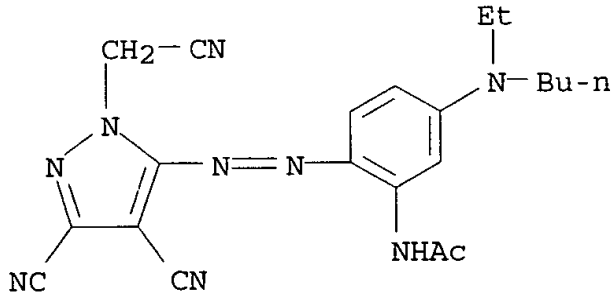
RN 110260-26-9 HCA
CN Acetamide, N-[5-(butylethylamino)-2-[[4-cyano-3-(cyanomethyl)-1-ethyl-1H-pyrazol-5-yl]azo]phenyl]- (9CI) (CA INDEX NAME)



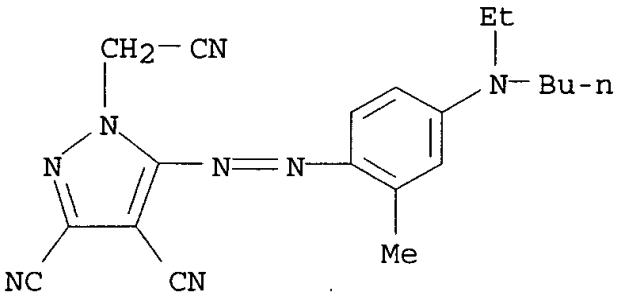
RN 110260-27-0 HCA
CN Acetamide, N-[2-[[3,4-dicyano-1-(cyanomethyl)-1H-pyrazol-5-yl]azo]-5-(diethylamino)phenyl]- (9CI) (CA INDEX NAME)



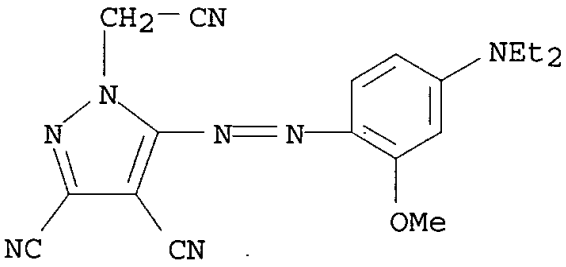
RN 110260-28-1 HCA
CN Acetamide, N-[5-(butylethylamino)-2-[[3,4-dicyano-1-(cyanomethyl)-1H-pyrazol-5-yl]azo]phenyl]- (9CI) (CA INDEX NAME)



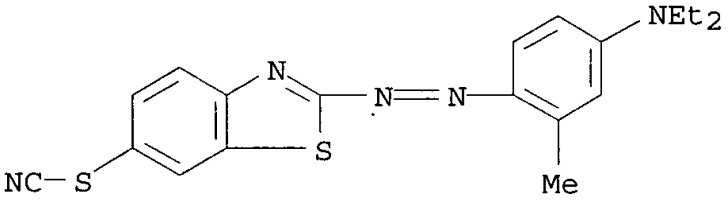
RN 110260-29-2 HCA
CN 1H-Pyrazole-3,4-dicarbonitrile, 5-[[4-(butylethylamino)-2-methylphenyl]azo]-1-(cyanomethyl)- (9CI) (CA INDEX NAME)



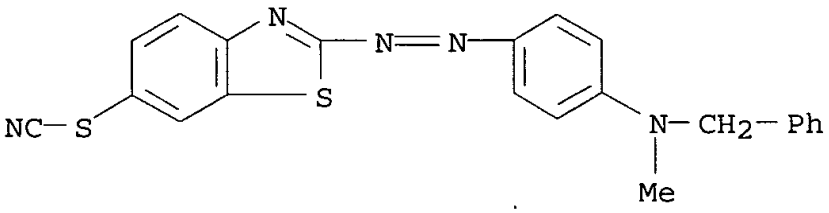
RN 110260-30-5 HCA
CN 1H-Pyrazole-3,4-dicarbonitrile, 1-(cyanomethyl)-5-[[4-(diethylamino)-2-methoxyphenyl]azo]- (9CI) (CA INDEX NAME)



RN 110260-31-6 HCA
CN Thiocyanic acid, 2-[[4-(diethylamino)-2-methylphenyl]azo]-6-benzothiazolyl ester (9CI) (CA INDEX NAME)

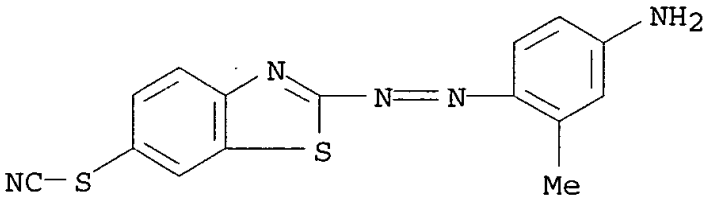


RN 110260-32-7 HCA
CN Thiocyanic acid, 2-[[4-[methyl(phenylmethyl)amino]phenyl]azo]-6-benzothiazolyl ester (9CI) (CA INDEX NAME)

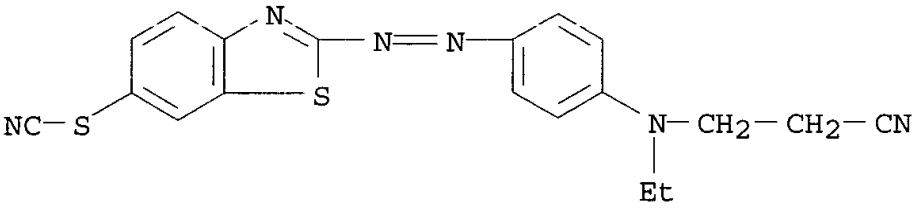


RN 110260-33-8 HCA

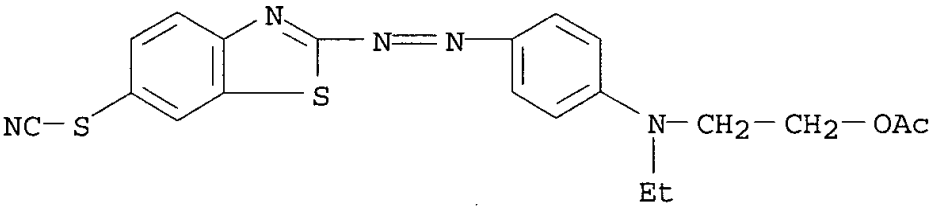
CN Thiocyanic acid, 2-[(4-amino-2-methylphenyl)azo]-6-benzothiazolyl ester (9CI) (CA INDEX NAME)



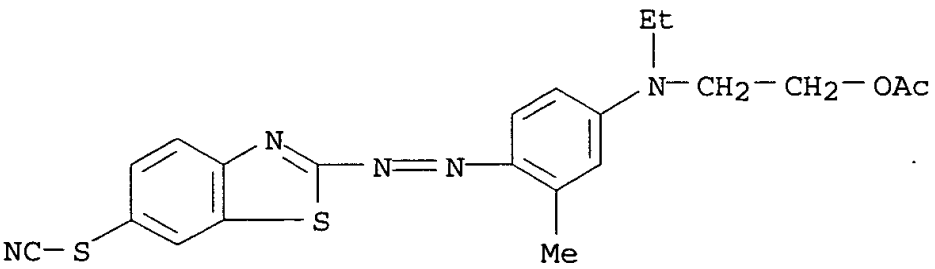
RN 110260-34-9 HCA
CN Thiocyanic acid, 2-[[4-[(2-cyanoethyl)ethylamino]phenyl]azo]-6-benzothiazolyl ester (9CI) (CA INDEX NAME)



RN 110260-35-0 HCA
CN Thiocyanic acid, 2-[[4-[[2-(acetyloxy)ethyl]ethylamino]phenyl]azo]-6-benzothiazolyl ester (9CI) (CA INDEX NAME)

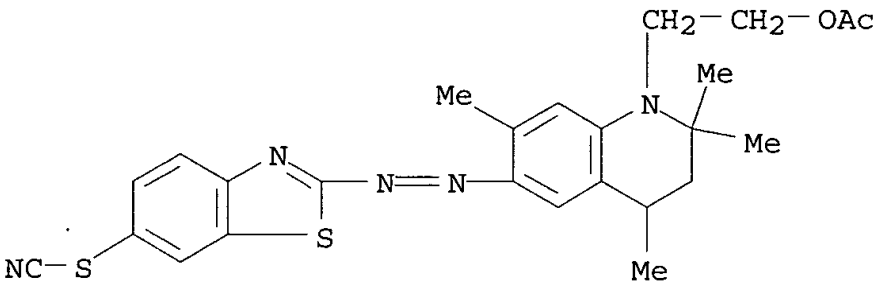


RN 110260-36-1 HCA
CN Thiocyanic acid, 2-[[4-[[2-(acetyloxy)ethyl]ethylamino]-2-methylphenyl]azo]-6-Benzothiazolyl ester (9CI) (CA INDEX NAME)

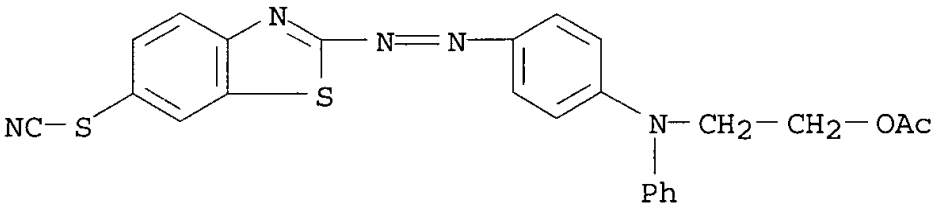


RN 110260-37-2 HCA

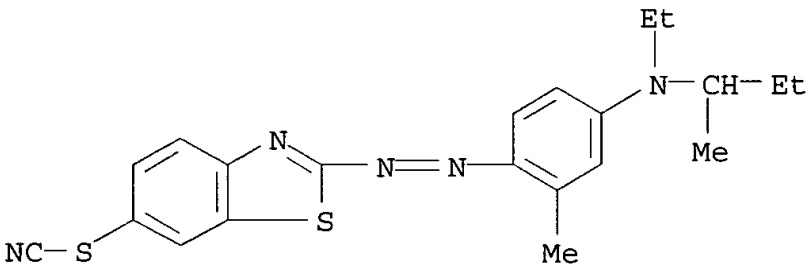
CN Thiocyanic acid, 2-[[1-[2-(acetyloxy)ethyl]-1,2,3,4-tetrahydro-2,2,4,7-tetramethyl-6-quinolinyl]azo]-6-benzothiazolyl ester (9CI) (CA INDEX NAME)



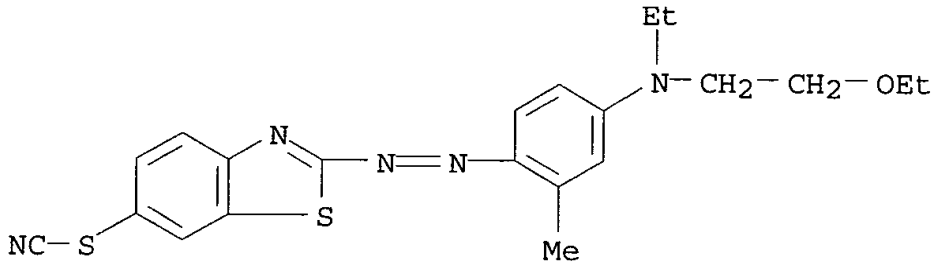
RN 110260-38-3 HCA
CN Thiocyanic acid, 2-[[4-[[2-(acetyloxy)ethyl]phenylamino]phenyl]azo]6-benzothiazolyl ester (9CI) (CA INDEX NAME)



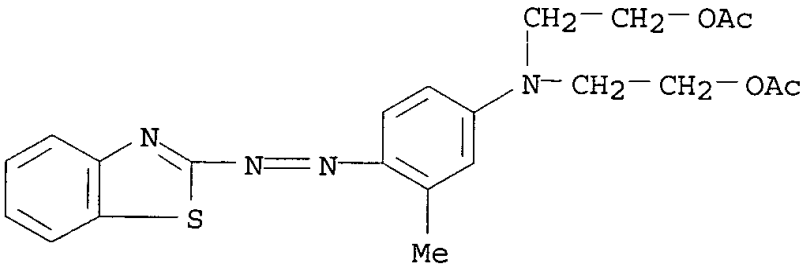
RN 110260-39-4 HCA
CN Thiocyanic acid, 2-[[4-[ethyl(1-methylpropyl)amino]-2-methylphenyl]azo]-6-benzothiazolyl ester (9CI) (CA INDEX NAME)



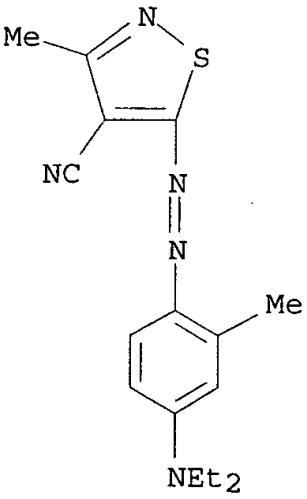
RN 110260-40-7 HCA
CN Thiocyanic acid, 2-[[4-[(2-ethoxyethyl)ethylamino]-2-methylphenyl]azo]-6-benzothiazolyl ester (9CI) (CA INDEX NAME)



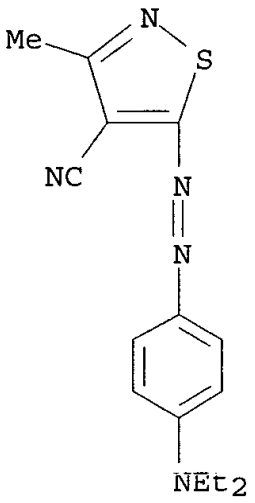
RN 110260-41-8 HCA
CN Ethanol, 2,2'-[[4-(2-benzothiazolylazo)-3-methylphenyl]imino]bis-, diacetate (ester) (9CI) (CA INDEX NAME)



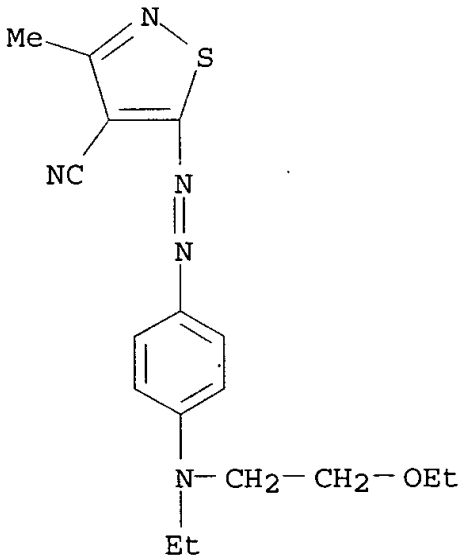
RN 110260-42-9 HCA
CN 4-Isothiazolecarbonitrile, 5-[[4-(diethylamino)-2-methylphenyl]azo]-3-methyl- (9CI) (CA INDEX NAME)



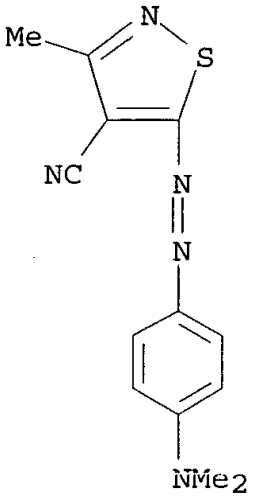
RN 110260-43-0 HCA
CN 4-Isothiazolecarbonitrile, 5-[[4-(diethylamino)phenyl]azo]-3-methyl- (9CI) (CA INDEX NAME)



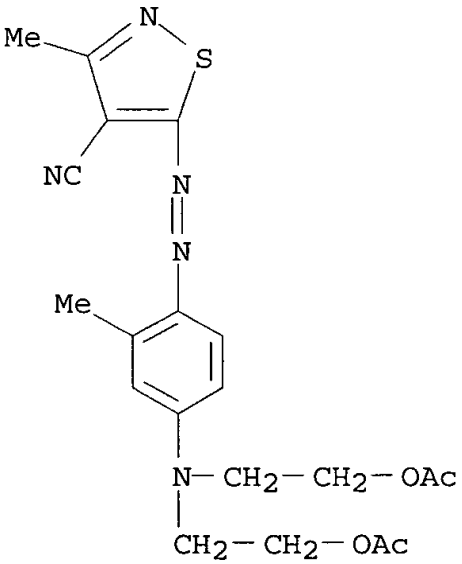
RN 110260-44-1 HCA
CN 4-Isothiazolecarbonitrile, 5-[[4-[(2-ethoxyethyl)ethylamino]phenyl]azo]-3-methyl- (9CI) (CA INDEX NAME)



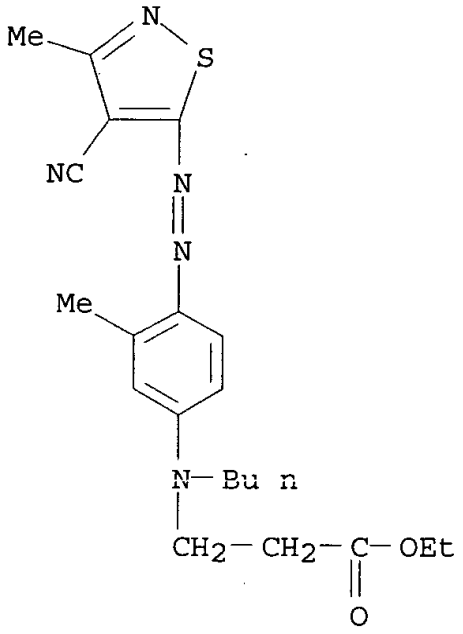
RN 110260-45-2 HCA
CN 4-Isothiazolecarbonitrile, 5-[[4-(dimethylamino)phenyl]azo]-3-methyl- (9CI) (CA INDEX NAME)



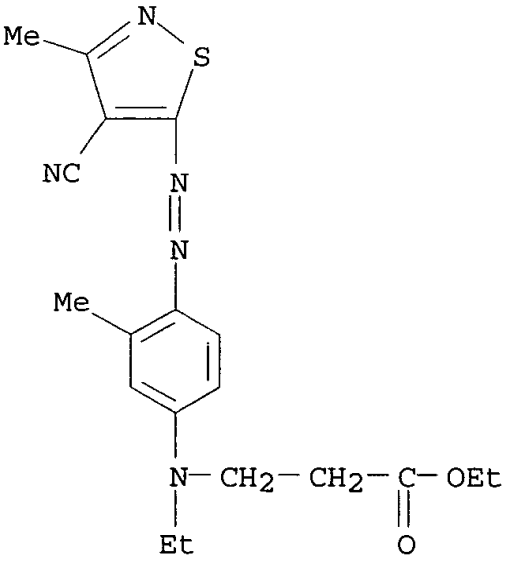
RN 110260-46-3 HCA
CN 4-Isothiazolecarbonitrile, 5-[[4-[bis[2-(acetyloxy)ethyl]amino]-2-methylphenyl]azo]-3-methyl- (9CI) (CA INDEX NAME)



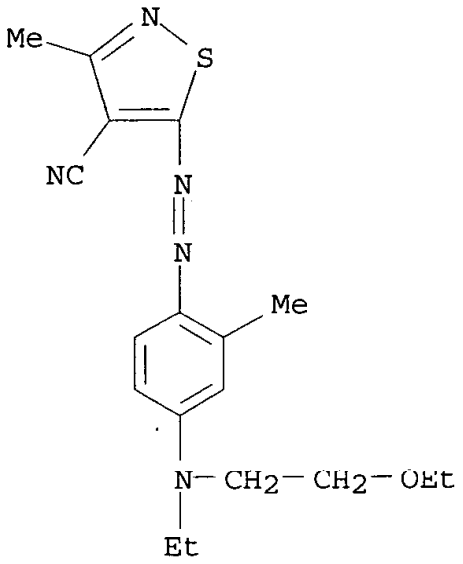
RN 110260-47-4 HCA
CN .beta.-Alanine, N-butyl-N-[4-[(4-cyano-3-methyl-5-isothiazolyl)azo]-3-methylphenyl]-, ethyl ester (9CI) (CA INDEX NAME)



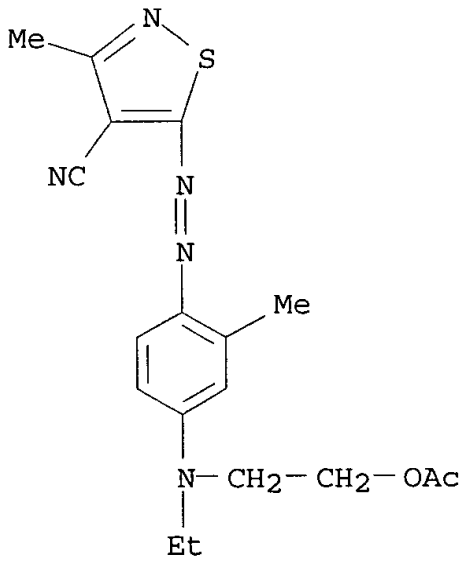
RN 110260-48-5 HCA
CN .beta.-Alanine, N-[4-[(4-cyano-3-methyl-5-isothiazolyl)azo]-3-methylphenyl]-N-ethyl-, ethyl ester (9CI) (CA INDEX NAME)



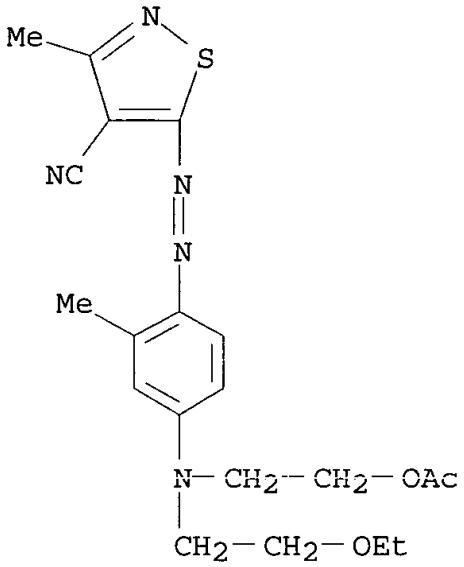
RN 110260-49-6 HCA
CN 4-Isothiazolecarbonitrile, 5-[[4-[(2-ethoxyethyl)ethylamino]-2-methylphenyl]azo]-3-methyl- (9CI) (CA INDEX NAME)



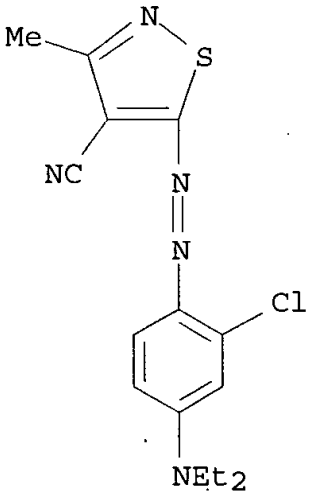
RN 110260-50-9 HCA
CN 4-Isothiazolecarbonitrile, 5-[[4-[[2-(acetyloxy)ethyl]ethylamino]-2-methylphenyl]azo]-3-methyl- (9CI) (CA INDEX NAME)



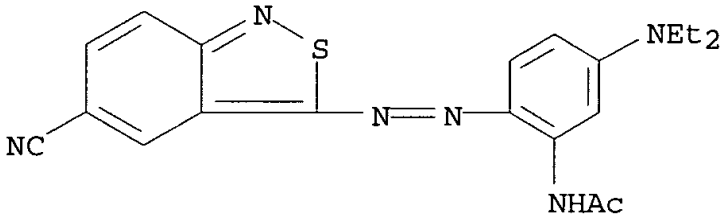
RN 110260-51-0 HCA
CN 4-Isothiazolecarbonitrile, 5-[[4-[[2-(acetyloxy)ethyl](2-ethoxyethyl)amino]-2-methylphenyl]azo]-3-methyl- (9CI) (CA INDEX NAME)



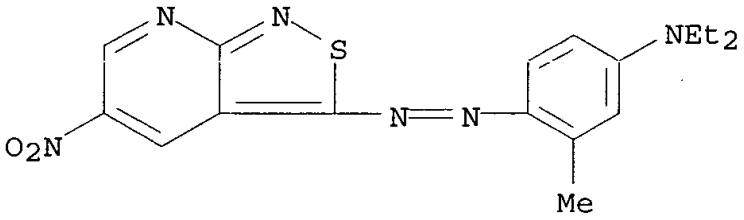
RN 110260-52-1 HCA
CN 4-Isothiazolecarbonitrile, 5-[[2-chloro-4-(diethylamino)phenyl]azo]-3-methyl- (9CI) (CA INDEX NAME)



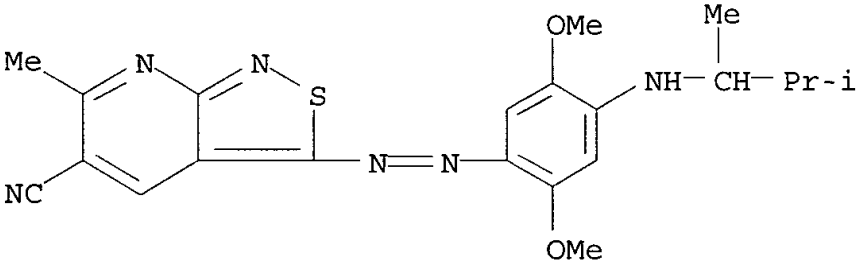
RN 110260-53-2 HCA
CN Acetamide, N-[2-[(5-cyano-2,1-benzisothiazol-3-yl)azo]-5-(diethylamino)phenyl]- (9CI) (CA INDEX NAME)



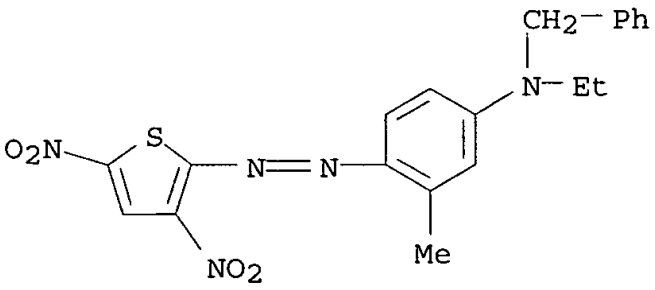
RN 110260-54-3 HCA
CN Benzenamine, N,N-diethyl-3-methyl-4-[(5-nitroisothiazolo[3,4-b]pyridin-3-yl)azo]- (9CI) (CA INDEX NAME)



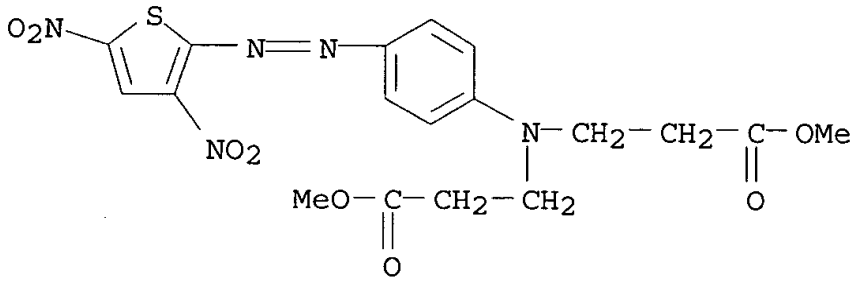
RN 110260-55-4 HCA
CN Isothiazolo[3,4-b]pyridine-5-carbonitrile, 3-[[4-[(1,2-dimethylpropyl)amino]-2,5-dimethoxyphenyl]azo]-6-methyl- (9CI) (CA INDEX NAME)



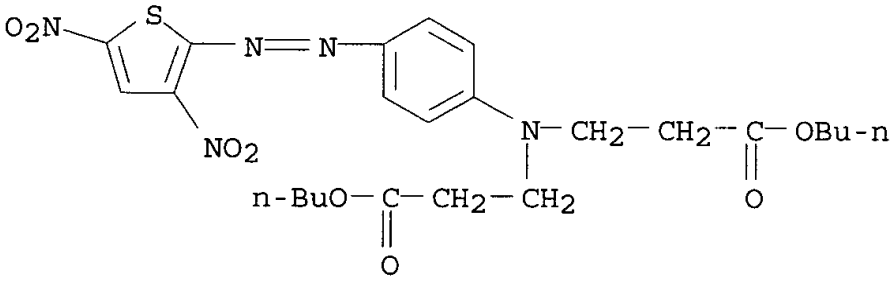
RN 110260-56-5 HCA
CN Benzenemethanamine, N-[4-[(3,5-dinitro-2-thienyl)azo]-3-methylphenyl]-N-ethyl- (9CI) (CA INDEX NAME)



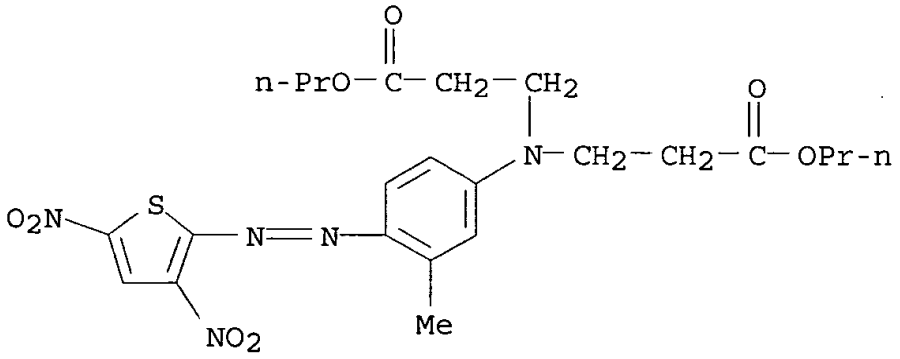
RN 110260-57-6 HCA
CN .beta.-Alanine, N-[4-[(3,5-dinitro-2-thienyl)azo]phenyl]-N-(3-methoxy-3-oxopropyl)-, methyl ester (9CI) (CA INDEX NAME)



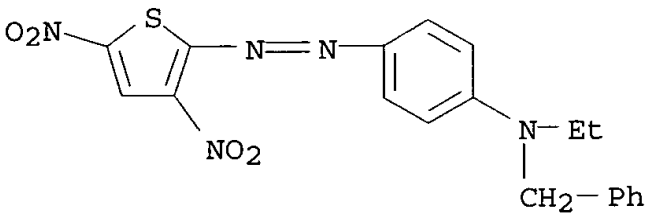
RN 110260-58-7 HCA
CN .beta.-Alanine, N-(3-butoxy-3-oxopropyl)-N-[4-[(3,5-dinitro-2-thienyl)azo]phenyl]-, butyl ester (9CI) (CA INDEX NAME)



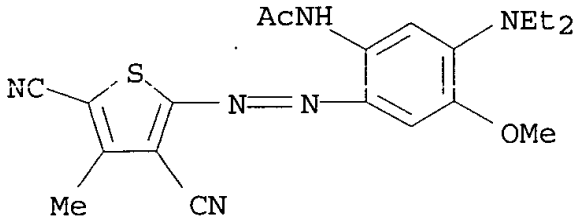
RN 110260-59-8 HCA
CN .beta.-Alanine, N-[4-[(3,5-dinitro-2-thienyl)azo]-3-methylphenyl]-N-(3-oxo-3-propoxypropyl)-, propyl ester (9CI) (CA INDEX NAME)



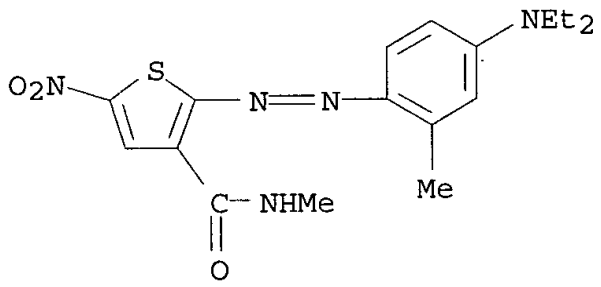
RN 110260-60-1 HCA
CN Benzenemethanamine, N-[4-[(3,5-dinitro-2-thienyl)azo]phenyl]-N-ethyl- (9CI) (CA INDEX NAME)



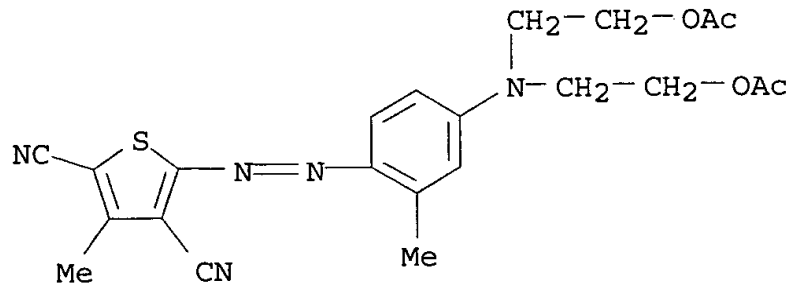
RN 110260-61-2 HCA
CN Acetamide, N-[2-[(3,5-dicyano-4-methyl-2-thienyl)azo]-5-(diethylamino)-4-methoxyphenyl]- (9CI) (CA INDEX NAME)



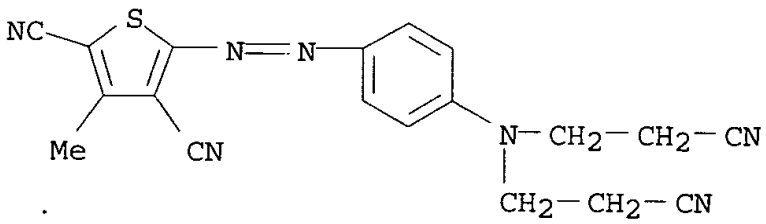
RN 110260-62-3 HCA
CN 3-Thiophenecarboxamide, 2-[[4-(diethylamino)-2-methylphenyl]azo]-N-methyl-5-nitro- (9CI) (CA INDEX NAME)



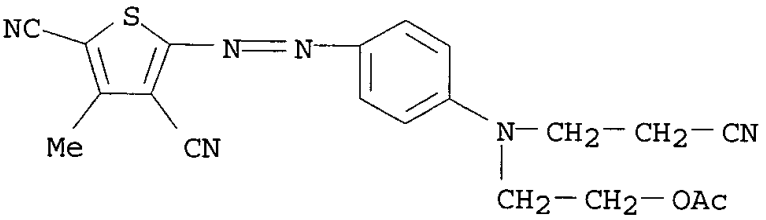
RN 110260-63-4 HCA
CN 2,4-Thiophenedicarbonitrile, 5-[[4-[bis[2-(acetyloxy)ethyl]amino]-2-methylphenyl]azo]-3-methyl- (9CI) (CA INDEX NAME)



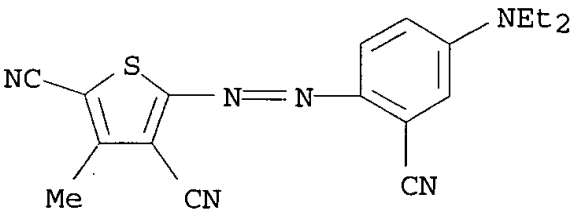
RN 110260-64-5 HCA
CN 2,4-Thiophenedicarbonitrile, 5-[[4-[bis(2-cyanoethyl)amino]phenyl]azo]-3-methyl- (9CI) (CA INDEX NAME)



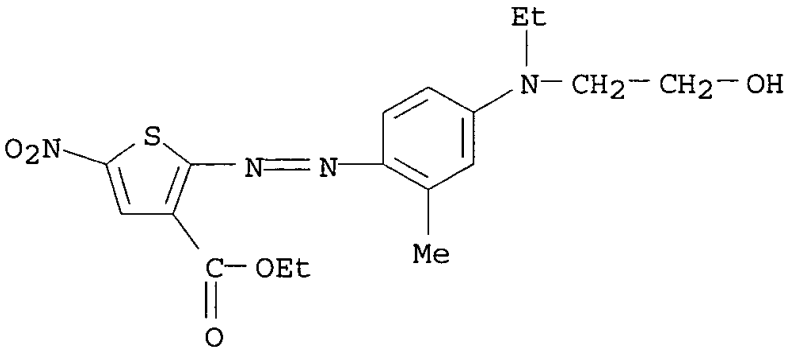
RN 110260-65-6 HCA
CN 2,4-Thiophenedicarbonitrile, 5-[[4-[[2-(acetyloxy)ethyl](2-cyanoethyl)amino]phenyl]azo]-3-methyl- (9CI) (CA INDEX NAME)



RN 110260-66-7 HCA
CN 2,4-Thiophenedicarbonitrile, 5-[[2-cyano-4-(diethylamino)phenyl]azo]-3-methyl- (9CI) (CA INDEX NAME)

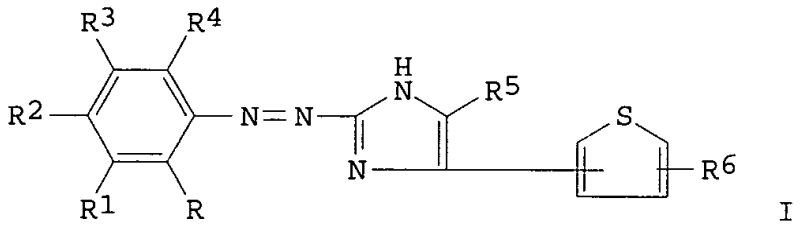


RN 110282-40-1 HCA
CN 3-Thiophenecarboxylic acid, 2-[[4-[ethyl(2-hydroxyethyl)amino]-2-methylphenyl]azo]-5-nitro-, ethyl ester (9CI) (CA INDEX NAME)

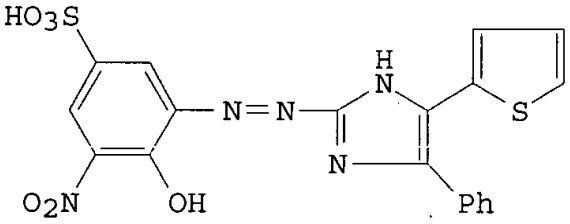


IC ICM B41M005-26
ICS B41M005-22; C09D011-02
CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 41, 42
IT Dyes, azo
(thermal-transfer recording **inks** contg.)
IT **58979-46-7 68110-29-2 70693-64-0**
70865-21-3 72537-33-8 76265-99-1
78473-28-6 88779-60-6 88779-71-9
88779-92-4 102301-05-3 102301-07-5
110260-18-9 110260-19-0 110260-20-3
110260-21-4 110260-22-5 110260-23-6
110260-24-7 110260-25-8 110260-26-9
110260-27-0 110260-28-1 110260-29-2
110260-30-5 110260-31-6 110260-32-7
110260-33-8 110260-34-9 110260-35-0
110260-36-1 110260-37-2 110260-38-3
110260-39-4 110260-40-7 110260-41-8
110260-42-9 110260-43-0 110260-44-1
110260-45-2 110260-46-3 110260-47-4
110260-48-5 110260-49-6 110260-50-9
110260-51-0 110260-52-1 110260-53-2
110260-54-3 110260-55-4 110260-56-5
110260-57-6 110260-58-7 110260-59-8
110260-60-1 110260-61-2 110260-62-3
110260-63-4 110260-64-5 110260-65-6
110260-66-7 110282-40-1
(dyes, for thermal transfer **inks**)

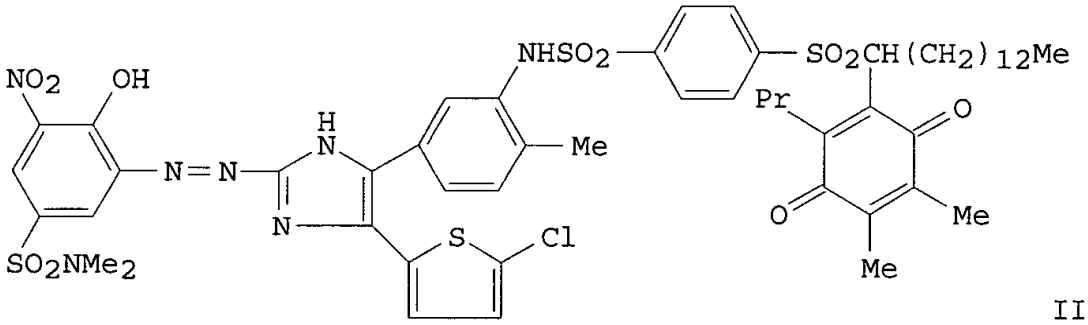
L42 ANSWER 7 OF 10 HCA COPYRIGHT 2003 ACS
102:26397 Chelatable azo dyes and their use in image production. Schenk, Guenther; Bergthaller, Peter; Heidenreich, Holger; Wolfrum, Gerhard (Agfa-Gevaert A.-G. , Fed. Rep. Ger.). Ger. Offen. DE 3312500 A1 19841011, 63 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1983-3312500 19830407.
GI



I



II

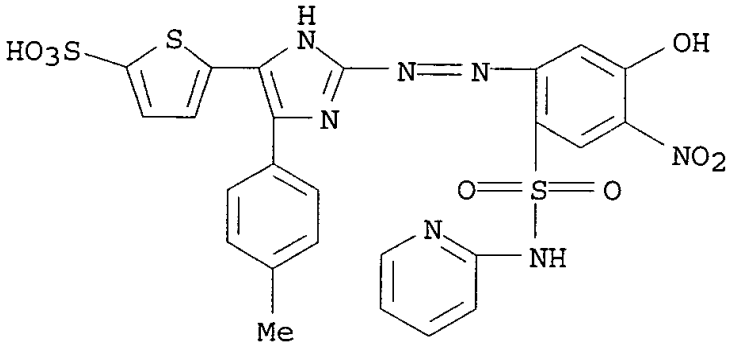


III

AB The title dyes, which give lightfast blue-green complexes when treated with Cu or Ni ions, are represented by general structure I, where R is a group capable of forming a 5-membered chelate ring; R1-R4 = H, F, Cl, NO2, alkyl, acylamino, etc., or R3R4 together form a 1,3-oxathiolS,S-dioxide ring; R5 = aryl, 2-thienyl, or 3-thienyl; and R6 = H, halogen, or alkyl. I can be used directly, e.g. in **inks** for **ink-jet** processes, or, when bound by means of an alkali-cleavable bond to a carrier residue contg. .gtoreq.1 ballast group, in diffusion-transfer color photog. film. Typical dyes include II [93972-44-2], prepd. by diazotizing 3,4,5-H2N(HO)(O2N)C6H2SO3H [96-93-5] and coupling with 5-phenyl-4-(2-thienyl)imidazole [93972-55-5], and III [94008-73-8], prepd. by reaction of 6-[1-[4-(chlorosulfonyl)phenylsulfonyl]tetradecyl]-2,3-dimethyl-5-propyl-1,4-benzoquinone [93972-61-3] with 4-(3-amino-p-tolyl)-5-(5-chloro-2-thienyl)imidazole [93972-62-4] followed by coupling with diazotized 3,4,5-H2N(HO)(O2N)C6H2SO2NMe2 [93972-45-3].

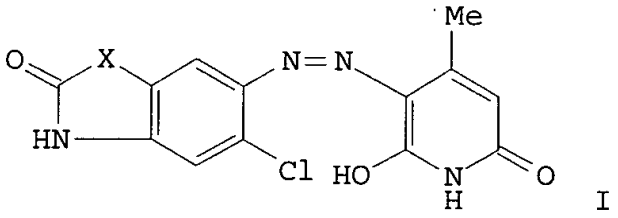
IT **93972-39-5**
(lightfastness of, on image-receiving sheet)

RN 93972-39-5 HCA
CN 2-Thiophenesulfonic acid, 5-[2-[[5-hydroxy-4-nitro-2-[(2-pyridinylamino)sulfonyl]phenyl]azo]-5-(4-methylphenyl)-1H-imidazol-4-yl]- (9CI) (CA INDEX NAME)



IC C09B029-36; C09B045-14; C09D011-16; G03C005-54; G03C007-26
CC 41-11 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
Section cross-reference(s): 74
ST azo dye chelatable; thienylimidazole azo dye; **imidazolylthiophene** azo dye; metalizable azo dye; copper complex azo dye; nickel complex azo dye; diffusion transfer photog dye; **ink jet printing** dye
IT Dyes, azo
((arylazo)thienylimidazole derivs., lightfast blue-green metal complex-forming, for **ink-jet** processes)
IT **Inks**
(**jet-printing**, metalizable dyes for, (arylazo)thienylimidazole derivs. as)
IT 93972-44-2
(dye, metalizable, for **ink-jet** processes)
IT 93972-47-5 93972-48-6 93972-49-7 93972-50-0 93972-51-1 93972-52-2 93972-53-3 93972-54-4
(dyes, metalizable, for **ink-jet** processes)
IT 93972-32-8 93972-33-9 93972-34-0 93972-35-1 93972-36-2 93972-37-3 93972-38-4 **93972-39-5** 93972-40-8 93972-41-9 93972-42-0 93972-43-1 93972-72-6 93972-73-7 93972-74-8 93972-75-9
(lightfastness of, on image-receiving sheet)

L42 ANSWER 8 OF 10 HCA COPYRIGHT 2003 ACS
85:161876 Azo pigments. Hari, Stefan; Mueller, Rolf; Mory, Rudolf (Ciba-Geigy A.-G., Switz.). Ger. Offen. DE 2606506 19760902, 17 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1976-2606506 19760218.
GI



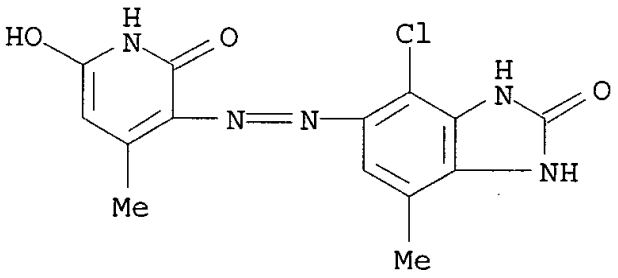
I

AB Two azo pigments (I, X = NH, CH:CMe) were prepd. and used to color PVC [9002-86-2], polyesters, and printing **inks** fast orange to red shades.. Thus, 5-amino-6-chlorobenzimidazolone [60713-77-1] was diazotized and coupled with 4-methyl-6-hydroxy-2-pyridone [4664-16-8] to give I (X = NH) [**60713-80-6**]. The other I was similarly prepd.

IT **60713-79-3**
(pigment, for PVC)

RN 60713-79-3 HCA

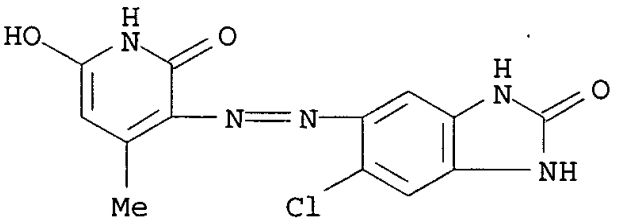
CN 2H-Benzimidazol-2-one, 4-chloro-5-[(1,2-dihydro-6-hydroxy-4-methyl-2-oxo-3-pyridinyl)azo]-1,3-dihydro-7-methyl- (9CI) (CA INDEX NAME)



IT **60713-80-6**
(pigment, for PVC, polyesters and **inks**)

RN 60713-80-6 HCA

CN 2H-Benzimidazol-2-one, 5-chloro-6-[(1,2-dihydro-6-hydroxy-4-methyl-2-oxo-3-pyridinyl)azo]-1,3-dihydro- (9CI) (CA INDEX NAME)



IC C09B039-00

CC 40-4 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)

ST **benzimidazolylazopyridone** pigment; quinolinylazopyridone

pigment; pyridone azo pigment; PVC pigment; polyester pigment

IT Pigments
(hydroxymethylpyridone heterocyclic azo derivs., for PVC, polyesters and **inks**)

IT Polyesters, uses and miscellaneous
(pigment for, [(**chlorooxobenzimidazolyl**)azo]hydroxymethylpyridone as)

IT 9002-86-2
(pigment for, [(**chlorooxobenzimidazolyl**)azo]hydroxymethylpyridone as)

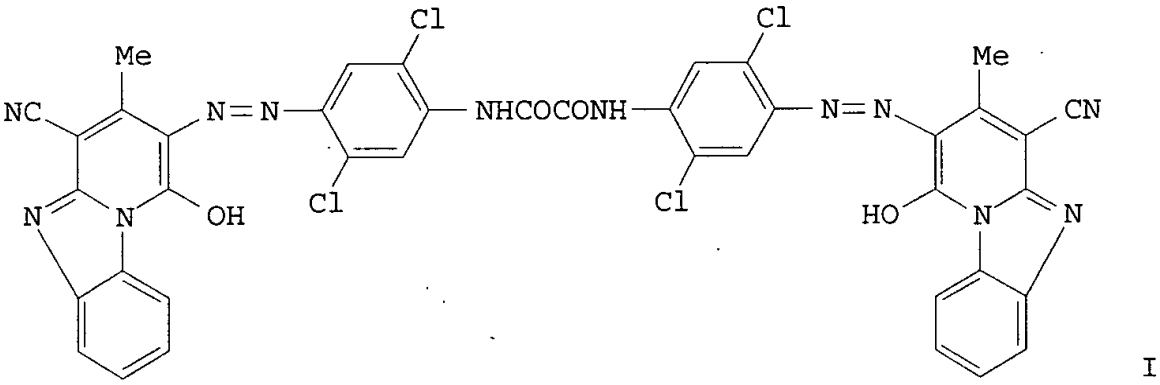
IT **60713-79-3**
(pigment, for PVC)

IT **60713-80-6**
(pigment, for PVC, polyesters and **inks**)

L42 ANSWER 9 OF 10 HCA COPYRIGHT 2003 ACS

85:22749 Disazo pigments. Mueller, Willy (Ciba-Geigy A.-G., Switz.). Ger. Offen. DE 2542408 19760415, 32 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1975-2542408 19750923.

GI



I

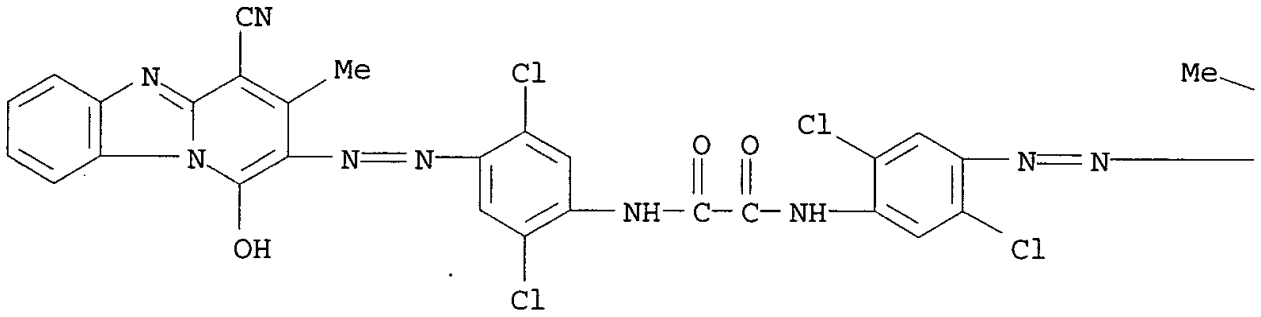
AB Disazo pigment [**59388-45-3**], coloring PVC [9002-86-2], **inks**, and coatings a fast red shade, was prepd. by coupling tetrazotized 2,5,4-Cl2(H2N)C6H2NHCOCONHC6H2(NH2)Cl2-4,2,5 [33052-31-2] with 4-cyano-3-methyl-1-hydroxypyrido[1,2-a]benzimidazole [34940-35-7].

IT **59388-45-3**
(pigment, for PVC, printing **inks** and coatings, prepn. of)

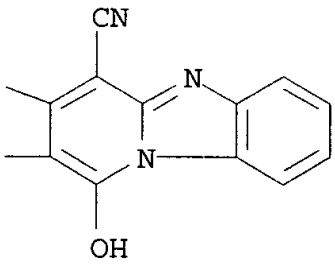
RN 59388-45-3 HCA

CN Ethanediamide, N,N'-bis[2,5-dichloro-4-[(4-cyano-1-hydroxy-3-methylpyrido[1,2-a]benzimidazol-2-yl)azo]phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC C09B
CC 40-4 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)
ST oxamide disazo pyridobenzimidazole pigment; azo oxamide pyridobenzimidazole pigment; PVC pigment; printing **ink** pigment
IT Pigments
(bis(**pyridobenzimidazolylazo**)oxalylanilide deriv., PVC, printing **inks** and coatings)
IT 9002-86-2
(pigment for, bis(**pyridobenzimidazolyl**)oxalylanilide)
IT **59388-45-3**
(pigment, for PVC, printing **inks** and coatings, prepn. of)

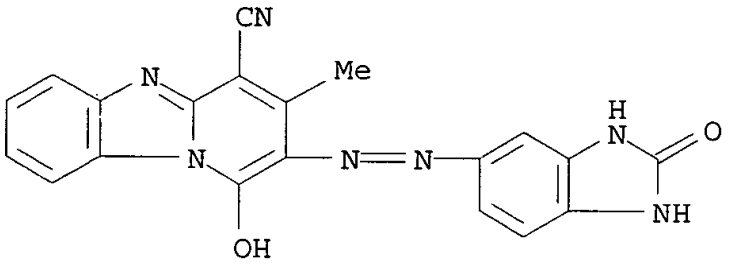
L42 ANSWER 10 OF 10 HCA COPYRIGHT 2003 ACS
84:6479 Azo dyes. Roueche, Armand; L'Eplattenier, Francois (Ciba-Geigy A.-G., Switz.). Ger. Offen. DE 2510373 19750918, 24 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1975-2510373 19750310.
GI For diagram(s), see printed CA Issue.
AB Azo pigments (I, R = 2-oxo-5-benzimidazolinyl; 1,2-dihydro-2-oxo-4,8-dimethyl-7-quinolinyl) were prepd. and used to color PVC [9002-86-2], **inks**, and melamine resin enamels red to bordeaux-red shades. Thus, 5-aminobenzimidazolone [95-23-8] was diazotized and coupled with 3-cyano-4-methyl-1,2-[1',2']benz[4',5']imidazolo-6-hydroxypyridine [34940-35-7] to give I

(R = 2-oxo-5-benzimidazolinyl) [**57303-73-8**], bordeaux-red in PVC.

IT **57303-73-8**
(pigment, for **inks**, melamine resin and PVC)

RN 57303-73-8 HCA

CN Pyrido[1,2-a]benzimidazole-4-carbonitrile, 2-[(2,3-dihydro-2-oxo-1H-benzimidazol-5-yl)azo]-1-hydroxy-3-methyl- (9CI) (CA INDEX NAME)



IC C09B

CC 40-4 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)

ST benzimidazolopyridine azo pigment; PVC azo pigment; printing **ink** pigment; melamine resin enamel pigment; pyridobenzimidazole azo pigment

IT Pigments
(cyanohydroxymethylbenzimidazolopyridine azo derivs., for enamels, **inks** and PVC)

IT **Inks**
(printing, pigments for, cyanohydroxymethyl[(**oxobenzimidazolyl**)azo]benzimidazolopyridine as)

IT **57303-73-8**
(pigment, for **inks**, melamine resin and PVC)

IT 57303-72-7
(pigment, for printing **inks**)

=> d l43 1-11 cbib abs hitstr hitind

L43 ANSWER 1 OF 11 HCA COPYRIGHT 2003 ACS

138:403164 Dye **inks** for **ink-jets**, cartridges, **ink-jet printing** method, and **ink-jet printing** images. Asatake, Atsushi; Nakamura, Masaki; Kawashima, Yasuhiko (Konica Co., Japan). Jpn. Kokai Tokkyo Koho JP 2003147239 A2 20030521, 18 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2001-347294 20011113.

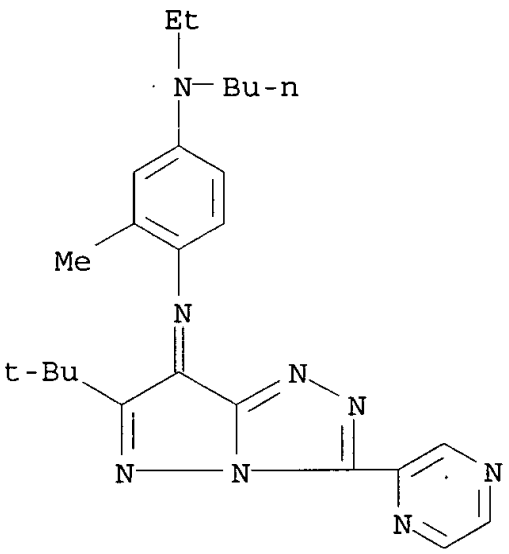
AB Title inks comprise .gtoreq.1 colored particles selected from colored particles comprising dye-contg. resins, colored particles comprising dye-coated resins, and dye-contg. resin-coated colored particles and contain fatty acids and fatty acid salts .ltoreq.0.5%. Thus, BL 10 polyvinyl butyral 10.0, magenta dye 10.0, and Et acetate 150 g were stirred, 1.2 g sodium lauryl sulfate and a surfactant were added therein to give a colored particle dispersion with av. diam. 82 nm and zeta potential -53 mV, which was mixed with myristic

acid 0.08, ethylene glycol 10, **glycerin** 20, Olfine E 1010 nonionic surfactant 0.3, and Takelac W 6060 polyurethane latex 1.0%, and ferric ion 0.8 ppm to give an ink with pH 9.2, surface tension 35.7 mN/m, and good printing image.

IT **323184-23-2**
(coated with polymer; dye inks contg. fatty acids and/or fatty acid salts for **ink-jets**)

RN 323184-23-2 HCA

CN 1,4-Benzenediamine, N4-butyl-N1-[6-(1,1-dimethylethyl)-3-pyrazinyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]-N4-ethyl-2-methyl- (9CI) (CA INDEX NAME)



IC ICM C09D011-00
ICS B41J002-01; B41M005-00

CC 42-12 (Coatings, Inks, and Related Products)
Section cross-reference(s): 39

ST dye **ink jet** cartridge **jet printing printing** image; polyvinyl butyral modified magenta dye surfactant ink compn

IT Nitrile rubber, uses
(Nipol SX 1503; dye inks contg. fatty acids and/or fatty acid salts for **ink-jets**)

IT Polyvinyl butyrals
(S-Lec BL 10, dyes coated with; dye inks contg. fatty acids and/or fatty acid salts for **ink-jets**)

IT Containers
(cartridges; dye inks contg. fatty acids and/or fatty acid salts for **ink-jets**)

IT Surfactants
(cationic; dye inks contg. fatty acids and/or fatty acid salts for **ink-jets**)

IT Cations
Ink-jet printing

(dye **inks** contg. fatty acids and/or fatty acid salts for **ink-jets**)

IT Fatty acids, uses
(dye inks contg. fatty acids and/or fatty acid salts for **ink-jets**)

IT **Inks**
(**jet-printing**; dye **inks** contg. fatty acids and/or fatty acid salts for **ink-jets**)

IT Polyurethanes, uses
(latex; dye inks contg. fatty acids and/or fatty acid salts for **ink-jets**)

IT Polysiloxanes, uses
(macromers, polymers with acrylic monomers, polyoxyalkylene acrylates, and styrene, dye coated with; dye inks contg. fatty acids and/or fatty acid salts for **ink-jets**)

IT Surfactants
(nonionic; dye inks contg. fatty acids and/or fatty acid salts for **ink-jets**)

IT Fatty acids, uses
(salts; dye inks contg. fatty acids and/or fatty acid salts for **ink-jets**)

IT Dyes
(surface coated with polymers; dye inks contg. fatty acids and/or fatty acid salts for **ink-jets**)

IT Polyoxyalkylenes, uses
(surfactants; dye inks contg. fatty acids and/or fatty acid salts for **ink-jets**)

IT Polymers, uses
(water-sol.; dye inks contg. fatty acids and/or fatty acid salts for **ink-jets**)

IT 161407-47-2 162208-01-7 319459-38-6 321392-21-6 **323184-23-2**
(coated with polymer; dye inks contg. fatty acids and/or fatty acid salts for **ink-jets**)

IT 79-41-4D, Methacrylic acid, polymers with acrylic monomers, polyoxyalkylene acrylates, styrene, and silicone macromers, salts 100-42-5D, Styrene, polymers with acrylic monomers, polyoxyalkylene acrylates, methacrylic acid, and silicone macromers, salts 142-90-5D, Lauryl methacrylate, polymers with acrylic monomers, polyoxyalkylene acrylates, methacrylic acid, and silicone macromers, salts 818-61-1D, 2-Hydroxyethyl acrylate, polymers with acrylic monomers, polyoxyalkylene acrylates, methacrylic acid, and silicone macromers, salts 9011-14-7, Polymethyl methacrylate 9056-77-3D, Polyethylene glycol methacrylate, polymers with acrylic monomers, styrene, methacrylic acid, and silicone macromers, salts 25249-16-5, 2-Hydroxyethyl methacrylate homopolymer 26010-51-5, 2-Hydroxyethyl methacrylate-styrene copolymer 26794-61-6, Butyl methacrylate-ethylene glycol dimethacrylate copolymer 28134-84-1, 2-Ethylhexyl acrylate-2-Hydroxyethyl methacrylate-styrene copolymer
(dye coated with; dye inks contg. fatty acids and/or fatty acid salts for **ink-jets**)

IT 57-10-3, Palmitic acid, uses 57-11-4, Stearic acid, uses 112-80-1, Oleic acid, uses 143-18-0, Potassium oleate 544-63-8, Myristic acid, uses 2624-31-9, Potassium palmitate 9002-89-5, PVA 203 14127-61-8, Calcium ion, uses 20074-52-6, Ferric ion, uses 22537-23-1, Aluminum ion, uses 326794-19-8, Takelac W 6060
(dye inks contg. fatty acids and/or fatty acid salts for **ink-jets**)

IT 290-87-9D, 1,3,5-Triazine, derivs.
(dye, coated with polymer; dye inks contg. fatty acids and/or fatty acid salts for **ink-jets**)

IT 9003-18-3
(nitrile rubber, Nipol SX 1503; dye inks contg. fatty acids and/or fatty acid salts for **ink-jets**)

IT 9014-85-1, Olfine E 1010
(nonionic surfactant; dye inks contg. fatty acids and/or fatty acid salts for **ink-jets**)

IT 4197-25-5, Oil Black 860 500226-87-9, FS YEllow 1015 500226-88-0, FS Blue 1504
(surface coated with polymer; dye inks contg. fatty acids and/or fatty acid salts for **ink-jets**)

L43 ANSWER 2 OF 11 HCA COPYRIGHT 2003 ACS

138:239502 Ink compositions containing hydrophobic pigments and **ink-jet printing** method. Takahashi, Osamu; Deguchi, Yasuaki; Ishii, Yoshio; Yabuki, Yoshiharu (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2003073598 A2 20030312, 89 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2002-10361 20020118. PRIORITY: JP 2001-187295 20010620.

AB Title compns. comprise colored fine particles with av. particle diam. 0.01-0.5 .mu.m, coeff. variance of particle size .ltoreq.45%, and sp. gr. 0.9-1.2, where the colored fine particles are prepd. by (i) emulsifying compns. comprising .gtoreq.1 hydrophobic pigments, .gtoreq.1 hydrophobic polymers, .gtoreq.1 high b.p. org. solvents with water soly. .ltoreq.4 g, .gtoreq.1 cosolvents having water soly. .ltoreq.25 g and b.p. .ltoreq.200.degree., and aq. media and (ii) removing the cosolvents. Thus, magenta type hydrophobic pigment 8, alkyl ester type high b.p. org. solvent 7, styrene-Me methacrylate-sodium acrylate copolymer 9, and antibleaching agent 1.5 g, Et acetate 140 mL, and polyethylene glycol lauryl ether sodium sulfate 20 mL were mixed, pulverized, Et acetate was removed, diethylene glycol 140, **glycerin** 64, and Surfynol 465 7 g, and urea were added therein, and adjusted at pH 7 to give an ink compn. with av. vol. particle size of colored fine particle 62 nm, coeff. variance of particle size 28%, sp. gr. 1.06, and good storage stability.

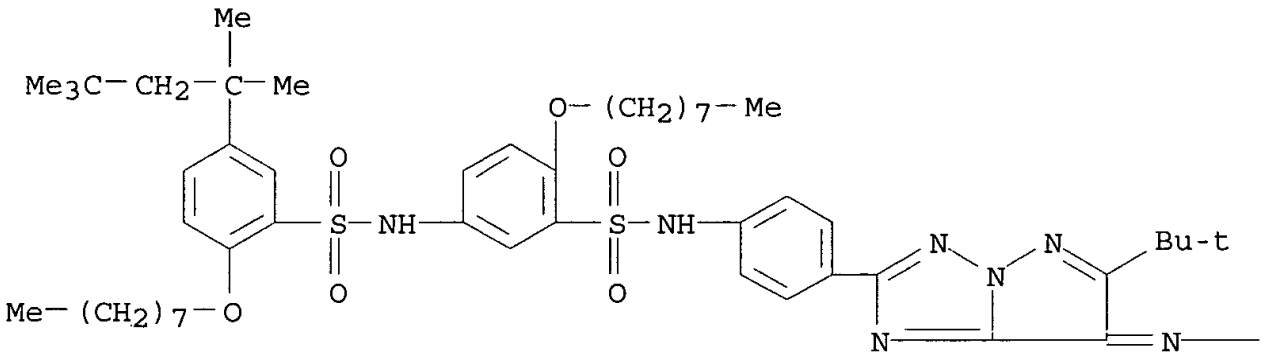
IT **358342-91-3 362497-25-4 501121-24-0**
(pigment; ink compns. contg. hydrophobic pigments for **ink-jet printing**)

RN 358342-91-3 HCA

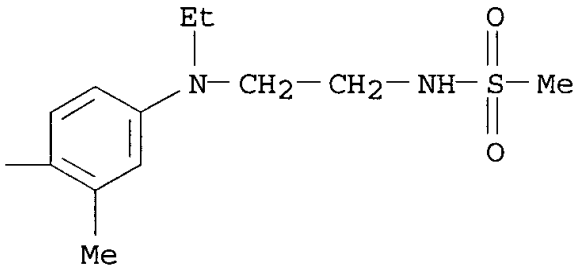
CN Benzenesulfonamide, N-[3-[[[4-[6-(1,1-dimethylethyl)-7-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]sulfonyl]-4-

(octyloxy)phenyl]-2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

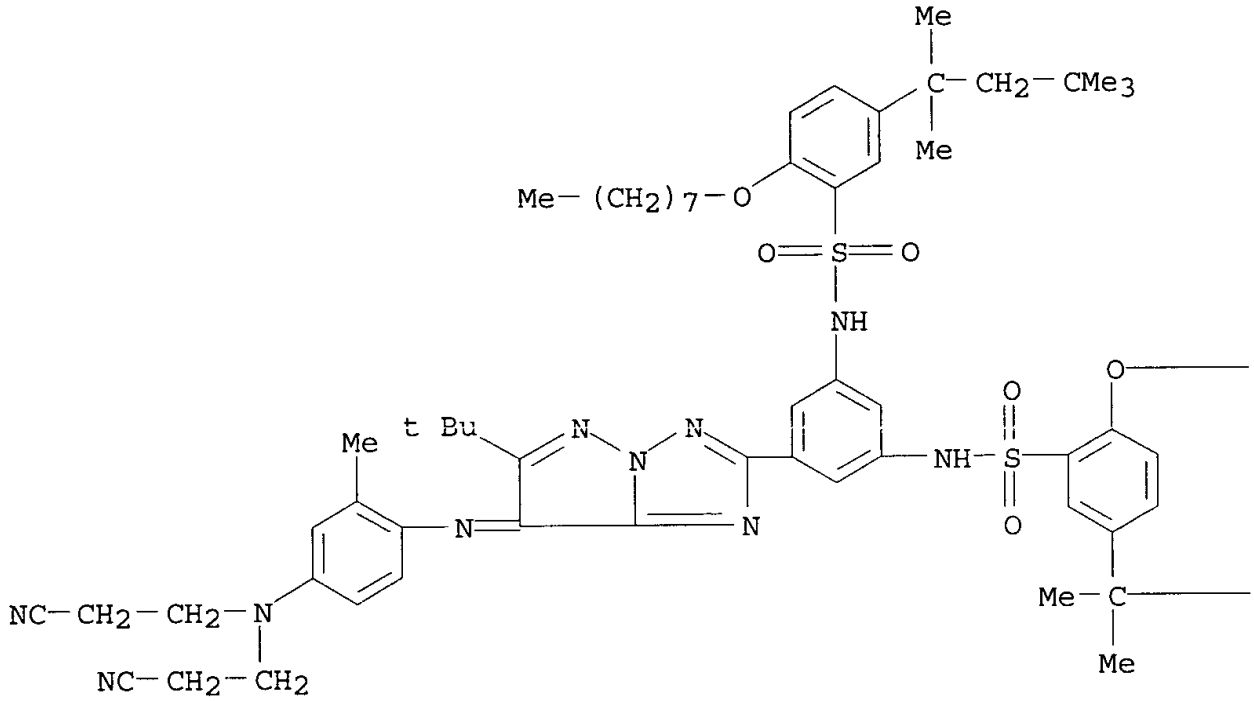


PAGE 1-B



RN 362497-25-4 HCA
CN Benzenesulfonamide, N,N'-[5-[7-[[4-[bis(2-cyanoethyl)amino]-2-methylphenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]-1,3-phenylene]bis[2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



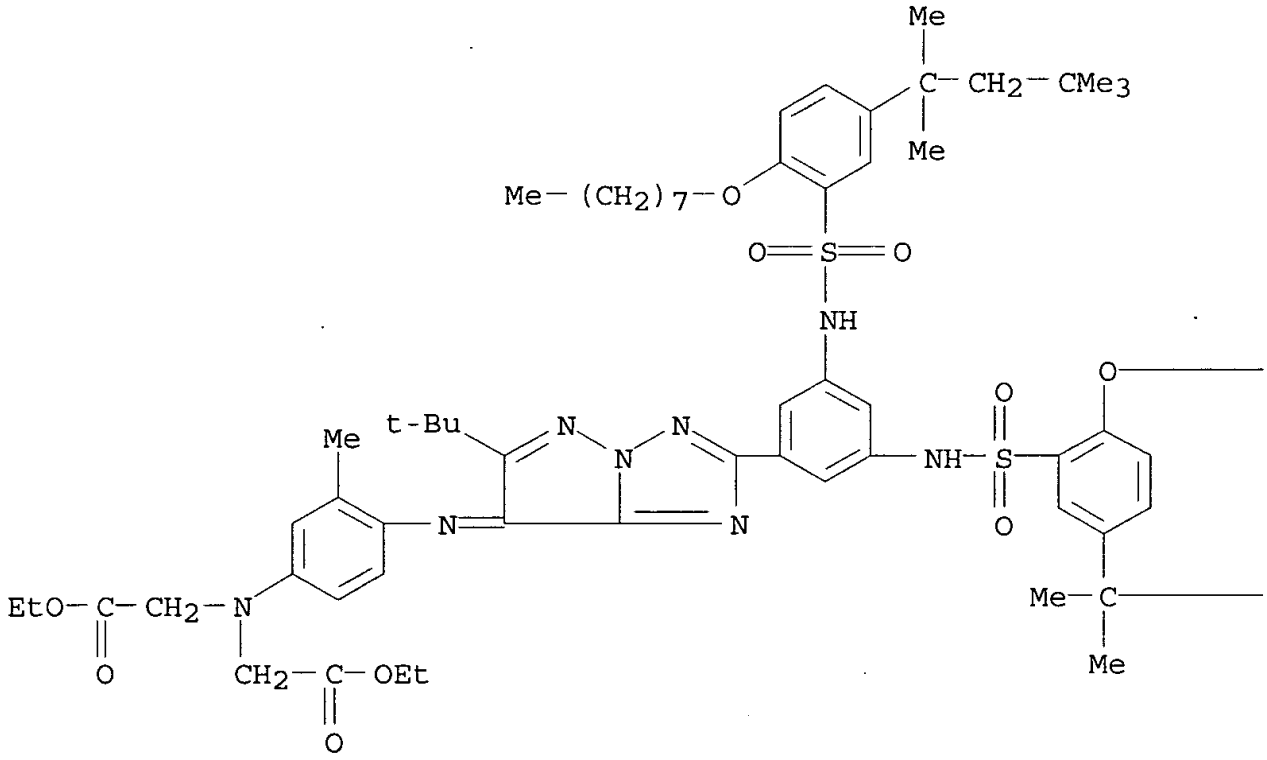
PAGE 1-B

— $(CH_2)_7$ — Me

— CH_2 — CMe_3

RN 501121-24-0 HCA
CN Glycine, N-[4-[[2-[3,5-bis[[[2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)phenyl]sulfonyl]amino]phenyl]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]-3-methylphenyl]-N-(2-ethoxy-2-oxoethyl)-, ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

— $(CH_2)_7$ — Me

— CH_2 — CMe_3

IC ICM C09D011-00
ICS B41J002-01; B41M005-00; C09B029-08; C09B029-42; C09B029-48; C09B047-20; C09B047-26; C09B055-00
CC 42-12 (Coatings, Inks, and Related Products)
ST ink compn hydrophobic pigment **jet printing**; magenta alkyl ester hydrophobic acrylic copolymer ethyl acetate compn
IT Coating materials
(for printing papers; ink compns. contg. hydrophobic pigments for **ink-jet printing**)
IT Pigments, nonbiological
(hydrophobic; ink compns. contg. hydrophobic pigments for **ink-jet printing**)
IT Binders
Ink-jet printing
Inks
(**ink** compns. contg. hydrophobic pigments for **ink-jet printing**)
IT 109-60-4, Propyl acetate 141-78-6, Ethyl acetate, uses
(cosolvent; ink compns. contg. hydrophobic pigments for **ink-jet printing**)
IT 88-99-3D, 1,2-Benzenedicarboxylic acid, branched diheptyl ester 122-62-3 528-44-9D, 1,2,4-Benzenetricarboxylic acid, triisodecanyl esters 26967-76-0 72386-53-9
(high b.p. solvent; ink compns. contg. hydrophobic pigments for **ink-jet printing**)
IT 9011-14-7, Methyl methacrylate homopolymer 25034-86-0, Methyl methacrylate-styrene copolymer 25085-39-6, Acrylic

acid-butadiene-styrene copolymer 25768-50-7, Cyclohexyl methacrylate homopolymer 28573-23-1, n-Butylacrylamide-tert-butylacrylate copolymer 86849-91-4, Methyl methacrylate-sodium acrylate-styrene copolymer
(ink compns. contg. hydrophobic pigments for **ink-jet printing**)

IT 67487-51-8P, Butyl acrylate-ethyl methacrylate-styrene copolymer 188484-13-1P, 2-Chloroethyl acrylate-ethyl methacrylate copolymer
(latex particle, coating material for printing media; ink compns. contg. hydrophobic pigments for **ink-jet printing**)

IT 346709-26-0 355841-69-9 **358342-91-3** **362497-25-4** 414909-46-9 414909-47-0 415684-04-7 445040-16-4 **501121-24-0** 501121-25-1 501121-26-2 501121-27-3 501330-41-2
(pigment; ink compns. contg. hydrophobic pigments for **ink-jet printing**)

L43 ANSWER 3 OF 11 HCA COPYRIGHT 2003 ACS

138:223087 Ink compositions with good printing images and image preservation and **ink-jet printing** method. Taguchi, Toshiki (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2003073591 A2 20030312, 10 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2001-266015 20010903.

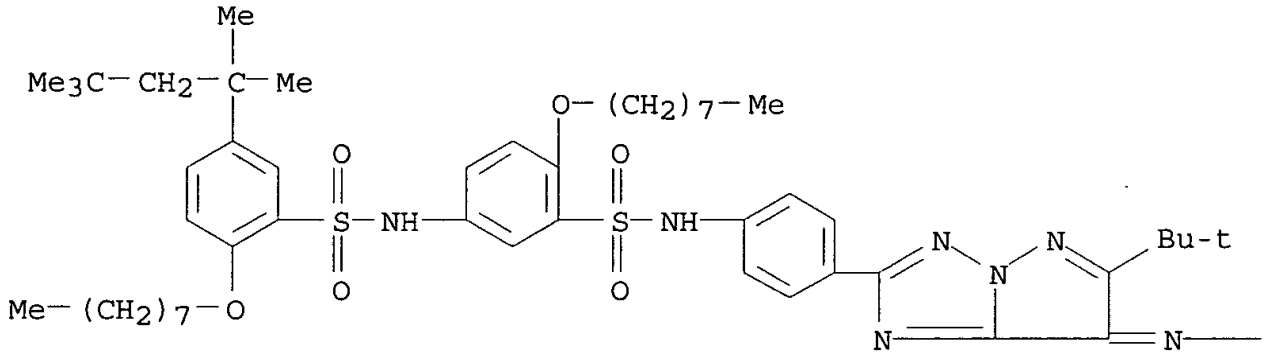
AB Title compns. comprise dyes, water-mixable org. solvents, and .gtoreq.1 compds. capable dye-inclusion. Thus, an ink compn. comprising magenta dye M 1 7.5, diethylene glycol 150, urea 37, **glycerin** 130, triethylene glycol monobutyl ether 130, triethanol amine 6.9, benzotriazole 0.08, Proxel XL 2 3.5, and Aerosol OT 10 g, and water was heated at 30-40.degree., stirred for 1 h, and adjusted at pH 9 to give an ink for Magenta, 40 g .gamma.-cyclodextrin and 40 g mol. nano tube were added thereon to give an **ink** for **ink-jet printing** showing dye retention ratio after irradn. for 10 days 23% and 42% after storing at 80.degree. and 15% RH for 10 days.

IT **358342-91-3**
(dye; ink compns. contg. dye inclusion-capable compds.)

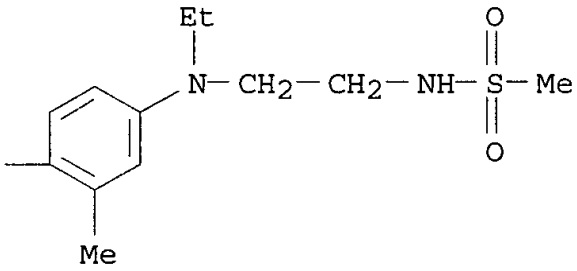
RN 358342-91-3 HCA

CN Benzenesulfonamide, N-[3-[[[4-[6-(1,1-dimethylethyl)-7-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]sulfonyl]-4-(octyloxy)phenyl]-2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)- (9CI) (CA INDEX NAME)

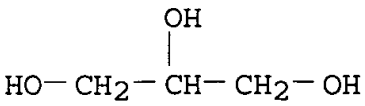
PAGE 1-A



PAGE 1-B



IT **56-81-5, Glycerin**, uses
(solvent; ink compns. contg. dye inclusion-capable compds.)
RN 56-81-5 HCA
CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



IC ICM C09D011-00
ICS B41J002-01; B41M005-00
CC 42-12 (Coatings, Inks, and Related Products)
ST **ink jet** compn **printing** image preservation; Magenta gamma cyclodextrin mol nanotube ink compn
IT **Inks**

(**jet-printing**, water-thinned; ink compns. contg. dye inclusion-capable compds.)

IT **358342-91-3**
(dye; ink compns. contg. dye inclusion-capable compds.)

IT **56-81-5**, **Glycerin**, uses 111-46-6, Diethylene glycol, uses
(solvent; ink compns. contg. dye inclusion-capable compds.)

L43 ANSWER 4 OF 11 HCA COPYRIGHT 2003 ACS

136:327137 Water-thinned **ink** compositions for **jet printing**. Yamanouchi, Junichi; Yamada, Masato; Yabuki, Yoshiharu (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002121414 A2 20020423, 68 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2001-211417 20010711. PRIORITY: JP 2000-216511 20000717.

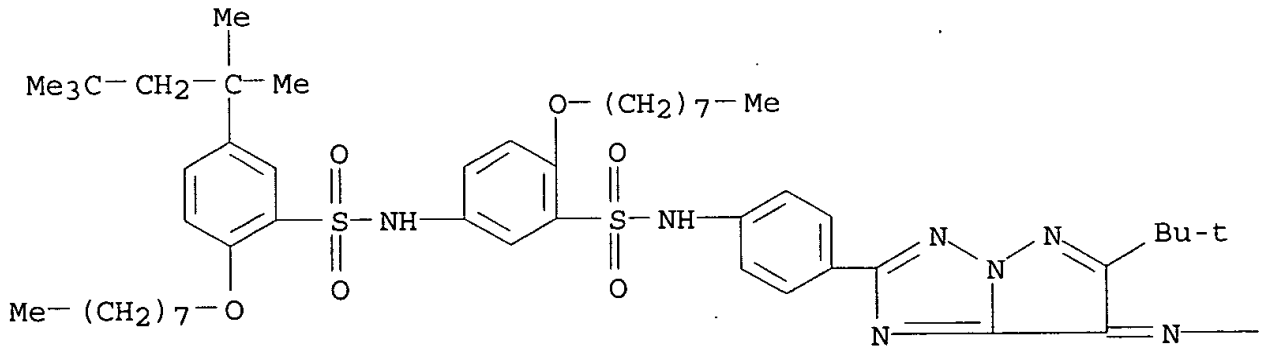
AB The ink compns. contain colored fine particle dispersions contg. hydrophobic org. solvents (b.p. .gtoreq.150.degree.) and oil-sol. dyes, and polymer latexes. Thus, a dispersion prepd. from an oil-sol. dye, Na dioctylsulfosuccinate, (MeC6H4O)3PO, (Me3CCH2CHMeCH2O)3PO, and UV absorbents was mixed with diethylene glycol, **glycerin**, Surfynol 465, urea, H2O, KOH, and acrylic acid-butadiene-styrene copolymer latexes to give a light magenta ink showing good printability, dryability, lightfastness, and water resistance.

IT **358342-91-3**
(water-thinned **jet printing inks** with good dryability, lightfastness, and water resistance)

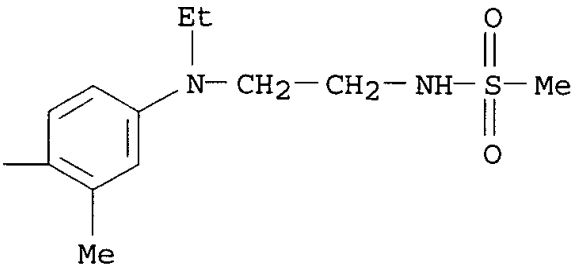
RN 358342-91-3 HCA

CN Benzenesulfonamide, N-[3-[[[4-[6-(1,1-dimethylethyl)-7-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]sulfonyl]-4-(octyloxy)phenyl]-2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM C09B067-20
ICS C09B067-20; B41J002-01; B41M005-00; C09B029-09; C09B047-067; C09B047-073; C09B055-00; C09B067-46; C09D011-00

CC 42-12 (Coatings, Inks, and Related Products)

ST magenta aq **ink jet printing**; water resistant polymer latex **jet printing ink** ; oil sol dye **jet printing ink**

IT Solvents
(high-boiling; water-thinned **jet printing inks** with good dryability, lightfastness, and water resistance)

IT **Inks**
(**jet-printing**, water-thinned; water-thinned **jet printing inks** with good dryability, lightfastness, and water resistance)

IT Dyes
(oil-sol.; water-thinned **jet printing inks** with good dryability, lightfastness, and water resistance)

IT 78-42-2, Tris(2-ethylhexyl) phosphate 84-74-2, Dibutyl phthalate 1330-78-5 2528-39-4, Trihexyl phosphate 129877-64-1 176533-62-3
(high-boiling solvent; water-thinned **jet printing inks** with good dryability, lightfastness, and water resistance)

IT 9003-17-2, Butadiene homopolymer 9003-55-8, Butadiene-styrene copolymer 9010-88-2, Ethyl acrylate-methyl methacrylate copolymer 25085-39-6, Acrylic acid-butadiene-styrene copolymer 25153-46-2, 2-Ethylhexyl acrylate-styrene copolymer 26284-14-0, Butyl methacrylate-methacrylic acid copolymer 29316-78-7, Acrylic acid-butyl acrylate-tert-butyl acrylate copolymer 50830-48-3, Allyl methacrylate-butyl acrylate-styrene copolymer 59809-01-7, Butyl acrylate-ethylene glycol dimethacrylate-styrene copolymer 90692-09-4 95890-94-1, Divinylbenzene-2-ethylhexyl

methacrylate-styrene copolymer 414909-48-1, Acrylic acid-2-acetoacetoxyethyl methacrylate-methyl acrylate copolymer
(latex; water-thinned **jet printing inks** with good dryability, lightfastness, and water resistance)

IT 70806-79-0 118150-13-3 118150-18-8 123036-85-1 346709-26-0 **358342-91-3** 369595-79-9 369595-82-4 414909-45-8 414909-46-9 414909-47-0 415684-04-7
(water-thinned **jet printing inks** with good dryability, lightfastness, and water resistance)

L43 ANSWER 5 OF 11 HCA COPYRIGHT 2003 ACS

136:201982 Colorant particle dispersions, their use in **ink-jet printing inks** and method of printing. Ishizuka, Takahiro; Yamanouchi, Junichi; Sotozono, Hirohisa (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002060648 A2 20020226, 39 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2001-152236 20010522. PRIORITY: JP 2000-151886 20000523.

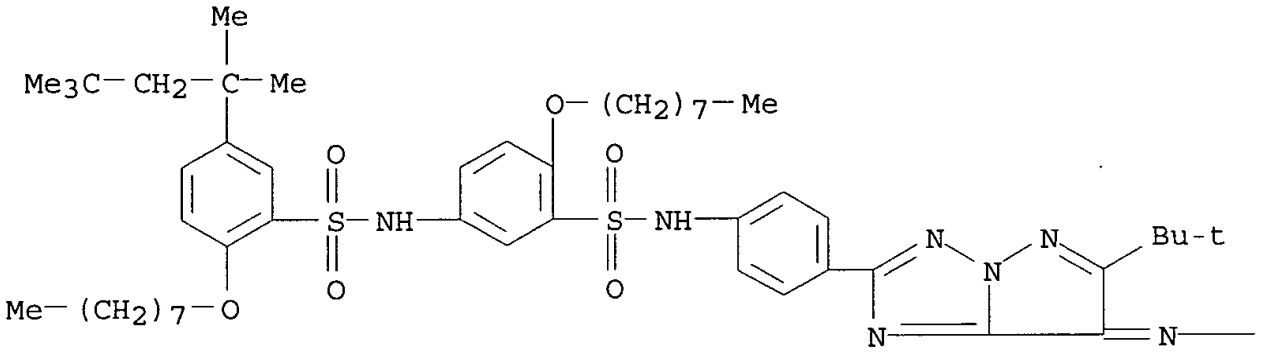
AB The dispersions contain oil-sol. dyes (A) and carboxyalkyl (meth)acrylate copolymers (B) and are obtained by emulsifying an oil phase contg. A and B in water. Thus, neutralizing a mixt. of i-PrOH 4, tert-BuOH 6, 2-carboxyethyl acrylate-Bu methacrylate (10:90) copolymer 1.4 and an oil-sol. dye 0.6 with a 2M NaOH soln., heating to 80.degree., stirring while combining with water 30 parts, and condensing at 40.degree. in vacuo gave a colorant dispersions with solids content 15% and contg. particles with vol.-av. diam. 67 nm. Mixing the dispersion 42 with diethylene glycol 10, **glycerin** 5, hexaethylene glycol monododecyl ether sulfate Na salt 0.5, di(2-ethylhexyl) sulfosuccinate Na salt 0.5 and water 36 parts and filtering gave an **ink** for **ink-jet printing** with good printability to various kinds of paper.

IT **358342-81-1 358342-91-3 358638-80-9 358638-81-0 362497-25-4 362497-26-5**
(oil-sol. dyes; manuf. of colorant particle dispersions, use in **ink-jet printing inks** and method of printing)

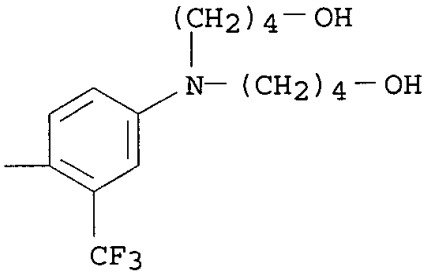
RN 358342-81-1 HCA

CN Benzenesulfonamide, N-[3-[[[4-[7-[[4-[bis(4-hydroxybutyl)amino]-2-(trifluoromethyl)phenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]sulfonyl]-4-(octyloxy)phenyl]-2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

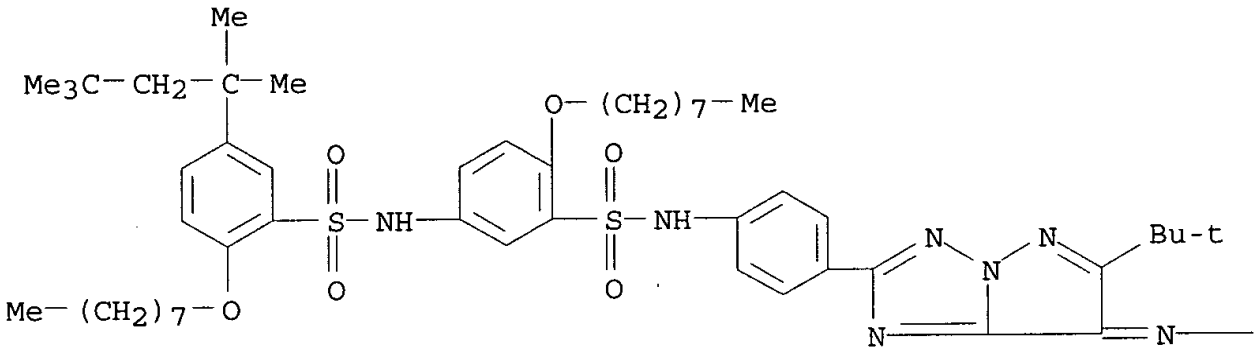


PAGE 1-B

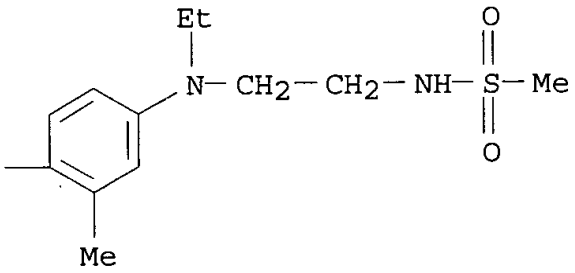


RN 358342-91-3 HCA
CN Benzenesulfonamide, N-[3-[[[4-[6-(1,1-dimethylethyl)-7-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]sulfonyl]-4-(octyloxy)phenyl]-2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

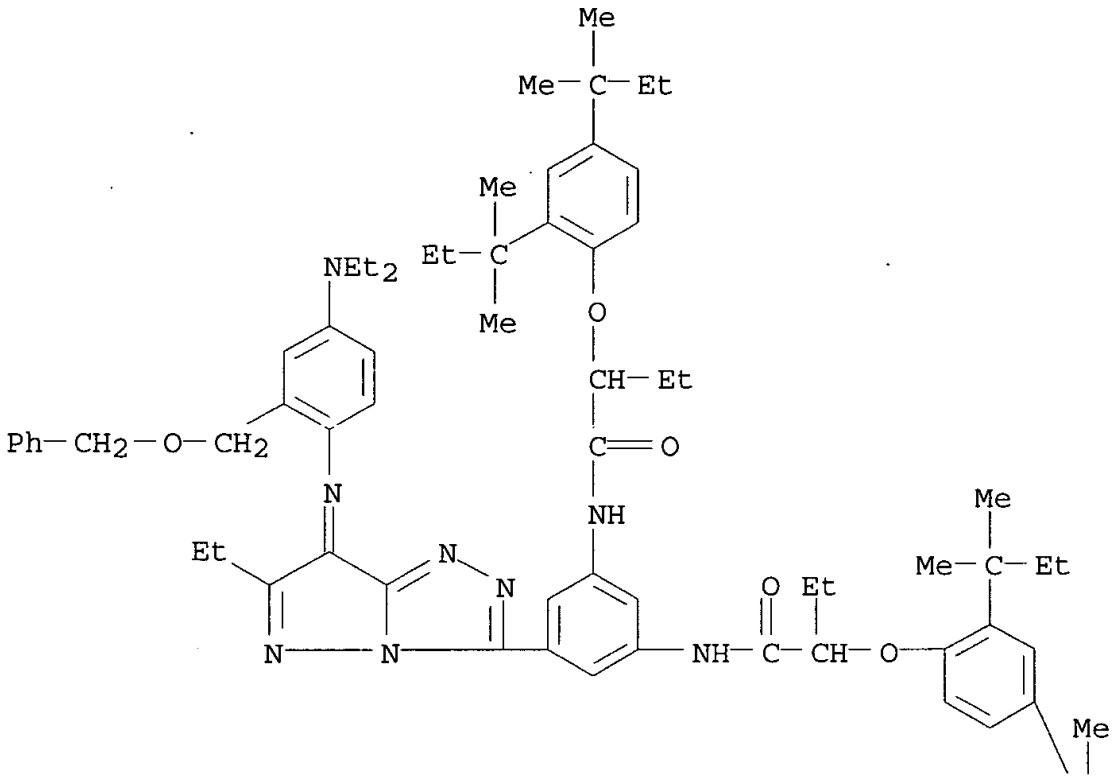


PAGE 1-B

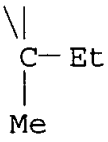


RN 358638-80-9 HCA
CN Butanamide, N,N'-[5-[7-[[4-(diethylamino)-2-[(phenylmethoxy)methyl]phenyl]imino]-6-ethyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl]-1,3-phenylene]bis[2-[2,4-bis(1,1-dimethylpropyl)phenoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A

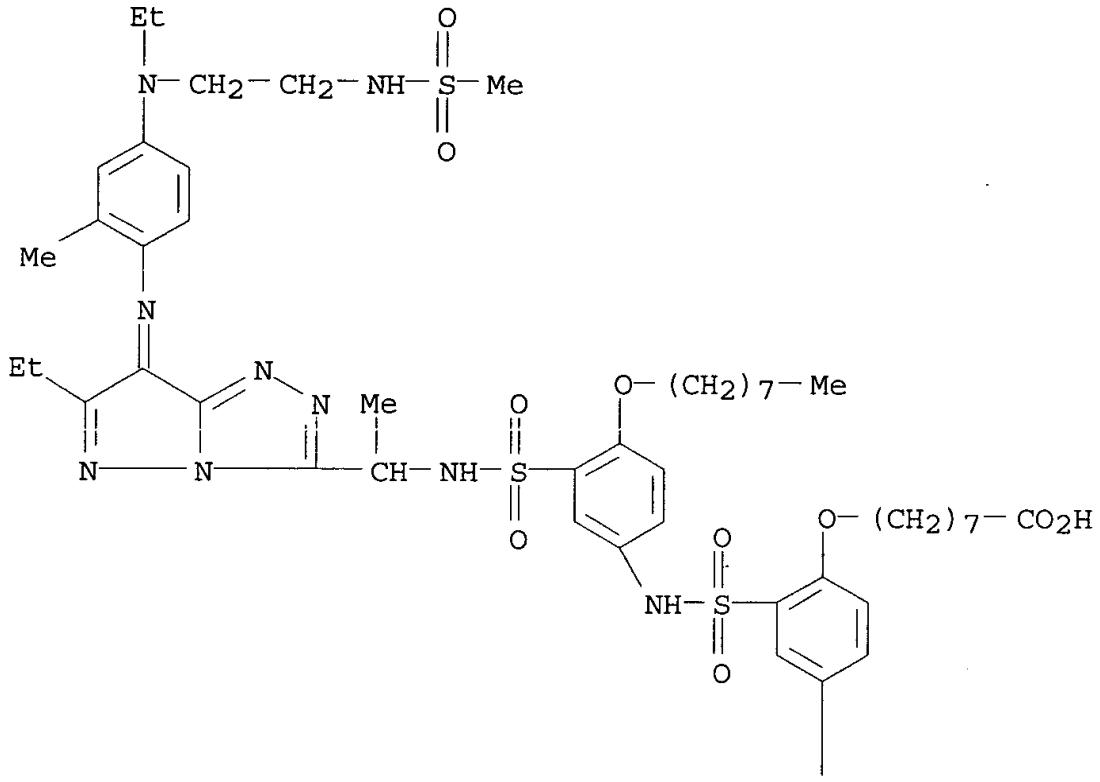


PAGE 2-A

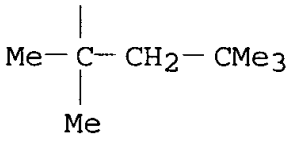


RN 358638-81-0 HCA
CN Octanoic acid, 8-[2-[[[3-[[[1-[6-ethyl-7-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl]ethyl]amino]sulfonyl]-4-(octyloxy)phenyl]amino]sulfonyl]-4-(1,1,3,3-tetramethylbutyl)phenoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A

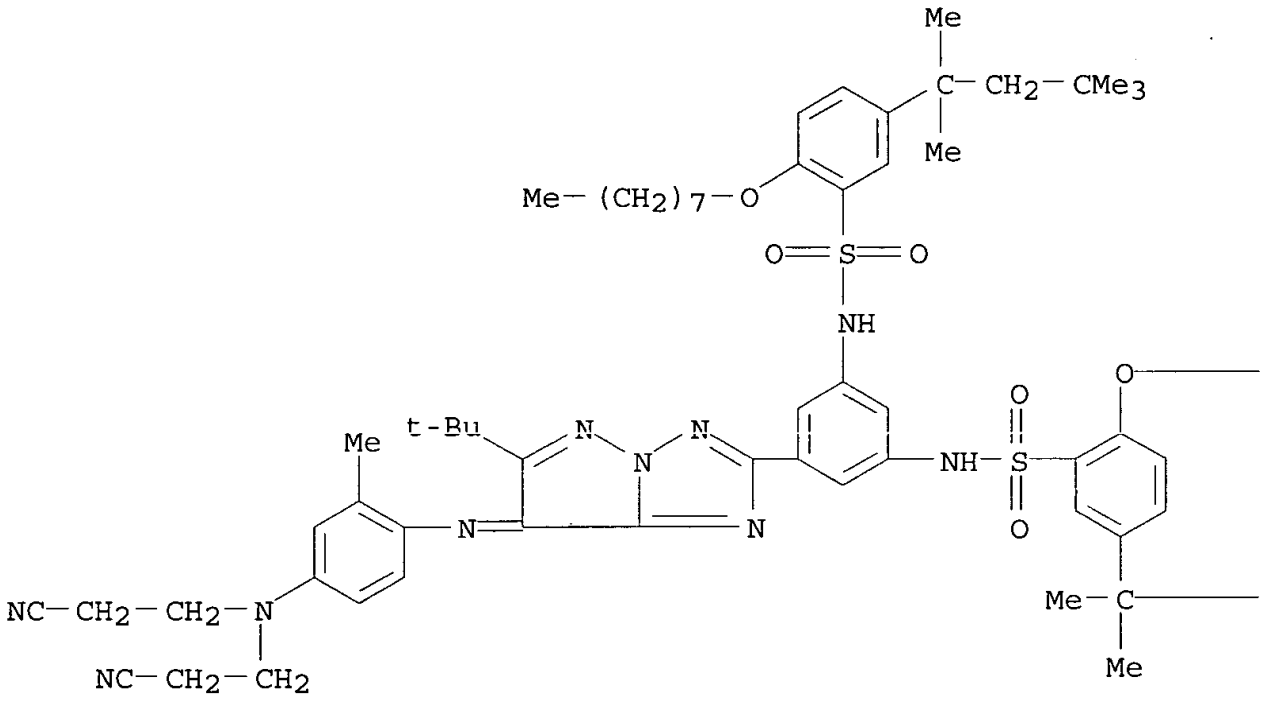


PAGE 2-A



RN 362497-25-4 HCA
CN Benzenesulfonamide, N,N'-[5-[7-[[4-[bis(2-cyanoethyl)amino]-2-methylphenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]-1,3-phenylene]bis[2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



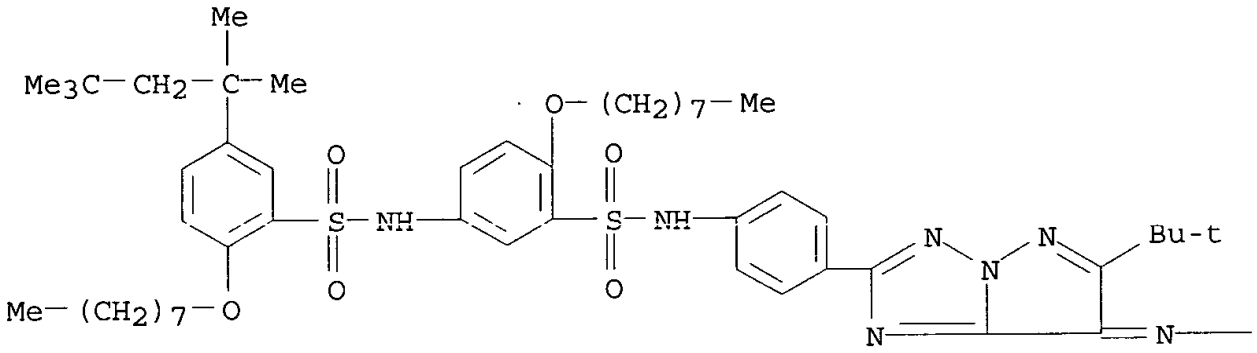
PAGE 1-B

— $(CH_2)_7$— Me .

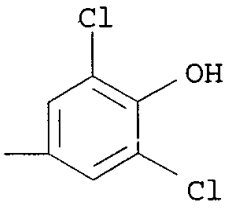
— CH_2— CMe_3

RN 362497-26-5 HCA
CN Benzenesulfonamide, N-[3-[[[4-[7-[(3,5-dichloro-4-hydroxyphenyl)imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]sulfonyl]-4-(octyloxy)phenyl]-2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM C09B067-40
ICS B01F017-52; B41J002-01; B41M005-00; C09B055-00; C09B067-20; C09B067-46; C09D011-00
CC 42-12 (Coatings, Inks, and Related Products)
ST oil sol dye dispersion **ink jet printing** **ink printability**; carboxyethyl acrylate copolymer emulsifying agent **ink jet printing** **ink**
IT Emulsifying agents
(carboxyethyl acrylate copolymers; manuf. of colorant particle dispersions, use in **ink-jet printing** **inks** and method of printing)
IT **Inks**

(**jet-printing**; manuf. of colorant particle dispersions, use in **ink-jet printing inks** and method of printing)

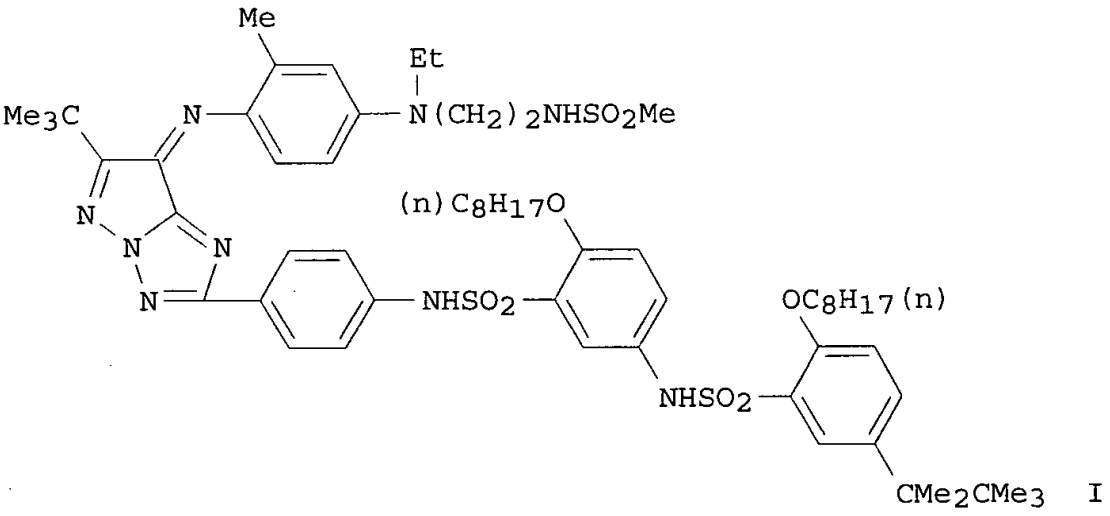
IT Dyes
(oil-sol.; manuf. of colorant particle dispersions, use in **ink-jet printing inks** and method of printing)

IT 401632-79-9, Butyl methacrylate-2-carboxyethyl acrylate copolymer sodium salt 401632-81-3 401632-82-4 401632-83-5 401632-84-6 401789-13-7, Butyl methacrylate-2-carboxyethyl acrylate-ethylene oxide graft copolymer methyl ether
(emulsifying agent for dyes; manuf. of colorant particle dispersions, use in **ink-jet printing inks** and method of printing)

IT 346709-26-0 355841-72-4 **358342-81-1 358342-91-3 358638-80-9 358638-81-0 362497-25-4 362497-26-5** 362497-28-7
(oil-sol. dyes; manuf. of colorant particle dispersions, use in **ink-jet printing inks** and method of printing)

L43 ANSWER 6 OF 11 HCA COPYRIGHT 2003 ACS
136:120020 Manufacture of thermal **ink-jet inks** and **printing** process therewith. Arakawa, Jun (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002020657 A2 20020123, 36 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-200780 20000703.

GI



I

AB Title inks, useful in high-speed printing process and resulting prints with durable properties, are prepd. by adding low b.p. (e.g., <150.degree.) org. solvents into high b.p. org. solvent-dissolved

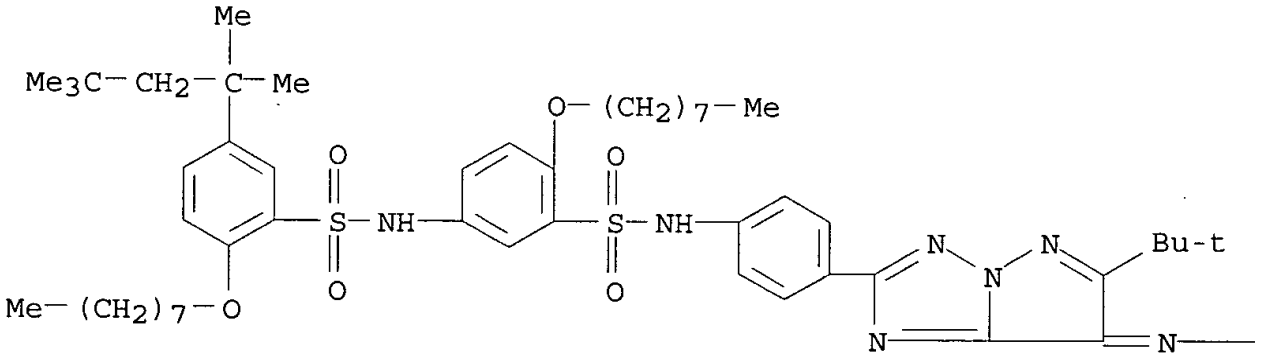
oil dyes, then emulsion dispersing in aq. media, and removing the low. b.p. org. solvents. Stirring water with a mixt. of I 6, Na dioctyl sulfosuccinate 5, tritolyl phosphate 6, and tris(2,4,4-trimethylpentyl) phosphate 10 g and 50 mL EtOAc, emulsifying at 60 Mpa, evapg. EtOAc, adding water, **glycerol**, diethylene glycol, and a surfactant gave an ink with vol-av. diam. of 58 nm and showing good storage stability at 60.degree. for 1 wk, no clogging until >500 mL, and color concn. decrease 2% after soaking in water for 1 min.

IT **358342-91-3**
(manuf. of thermal aq. **ink-jet inks** involving addn. of low and high b.p. org. solvents for anticlogging and storage stability)

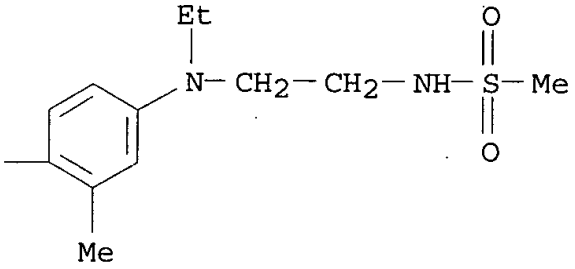
RN 358342-91-3 HCA

CN Benzenesulfonamide, N-[3-[[[4-[6-(1,1-dimethylethyl)-7-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]sulfonyl]-4-(octyloxy)phenyl]-2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

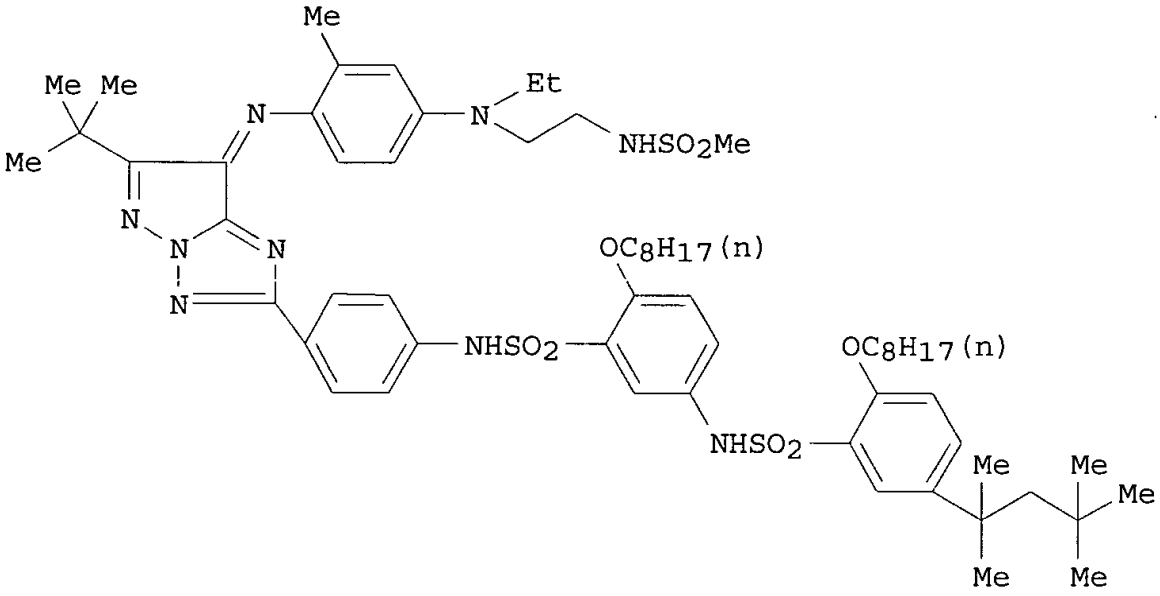


IC ICM C09D011-00
ICS B41J002-01; B41M005-00
CC 42-12 (Coatings, Inks, and Related Products)
IT **Inks**
(**jet-printing**; manuf. of thermal aq. **ink-jet inks** involving addn. of low and high b.p. org. solvents for anticlogging and storage stability)
IT Emulsification
(manuf. of thermal aq. **ink-jet inks** involving addn. of low and high b.p. org. solvents for anticlogging and storage stability)
IT Dyes
(oil; manuf. of thermal aq. **ink-jet inks** involving addn. of low and high b.p. org. solvents for anticlogging and storage stability)
IT Solvents
(org.; manuf. of thermal aq. **ink-jet inks** involving addn. of low and high b.p. org. solvents for anticlogging and storage stability)
IT 141-78-6, Ethyl acetate, uses 1330-78-5, Tritolyl phosphate 129877-64-1
(manuf. of thermal aq. **ink-jet inks** involving addn. of low and high b.p. org. solvents for anticlogging and storage stability)
IT 118150-13-3 346709-26-0 **358342-91-3**
(manuf. of thermal aq. **ink-jet inks** involving addn. of low and high b.p. org. solvents for anticlogging and storage stability)

L43 ANSWER 7 OF 11 HCA COPYRIGHT 2003 ACS
135:359262 Water-resistant **ink-jet ink** composition with good discharge and storage stability and printing method therewith. Azuma, Yasushi (Fuji Photo Film Co., Ltd.,

Japan). Jpn. Kokai Tokkyo Koho JP 2001316605 A2 20011116, 30 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-135543 20000509.

GI



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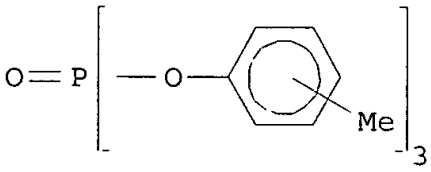
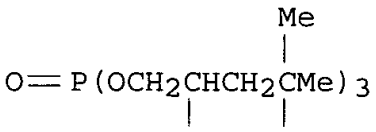


II



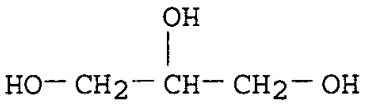
III

AB Title ink compn. contains a dye dispersion prepd. by emulsifying in an aq. medium oil-sol. dyes dissolved by org. solvents having high b.p., wherein the dispersed particles are characterized by the vol.-av. diam. of .ltoreq.100 nm and the ratio of vol.-av. diam. and no.-av. diam. (vol.-av. diam./no.-av. diam.) 1-1.5. Thus, a dispersion comprising an azomethine dye I 8, Na dioctylsulfosuccinate 5, high-b.p. solvents II and III 6 and 10 g, and Et acetate 50 mL, was emulsified, desolvated, and added with diethylene glycol 130, **glycerin** 60, Na dioctylsulfosuccinate 7.2 g, and water 700 mL to give an ink showing good printing quality, esp. on white pigment-contg. image receiving paper.

IT **56-81-5**, **Glycerin**, uses
(prepn. of water-resistant **ink-jet** **ink** compn. with good discharge and storage stability)

RN 56-81-5 HCA

CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)

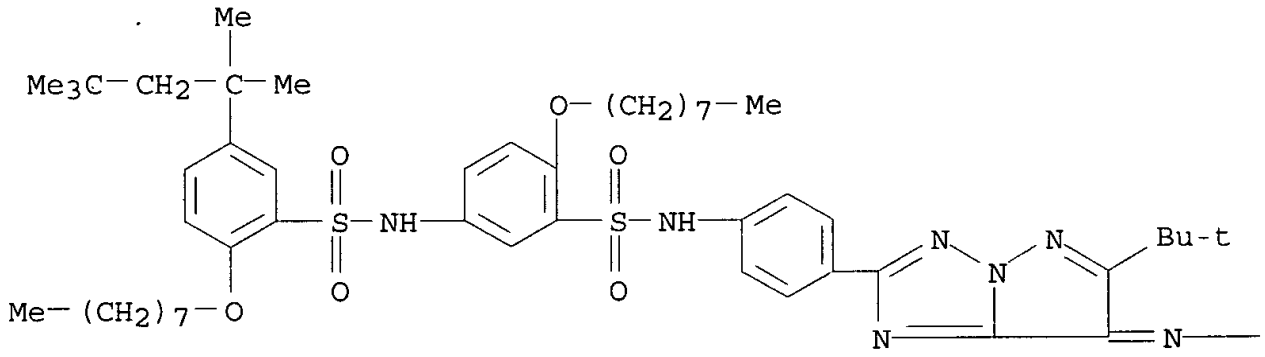


IT **358342-91-3**
(prepn. of water-resistant **ink-jet** **ink** compn. with good discharge and storage stability)

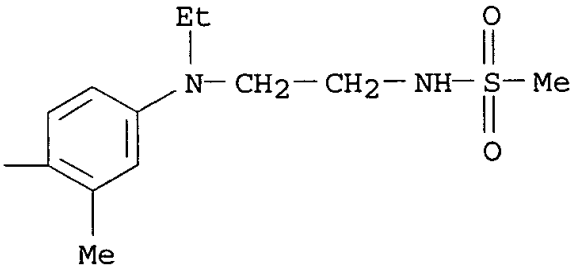
RN 358342-91-3 HCA

CN Benzenesulfonamide, N-[3-[[[4-[6-(1,1-dimethylethyl)-7-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]sulfonyl]-4-(octyloxy)phenyl]-2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

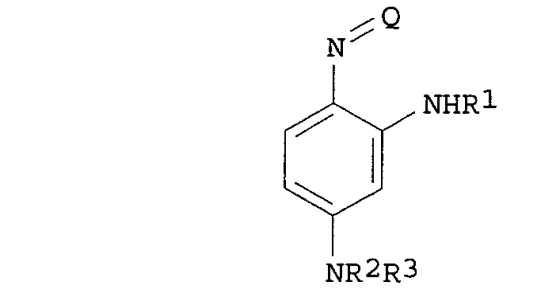


PAGE 1-B

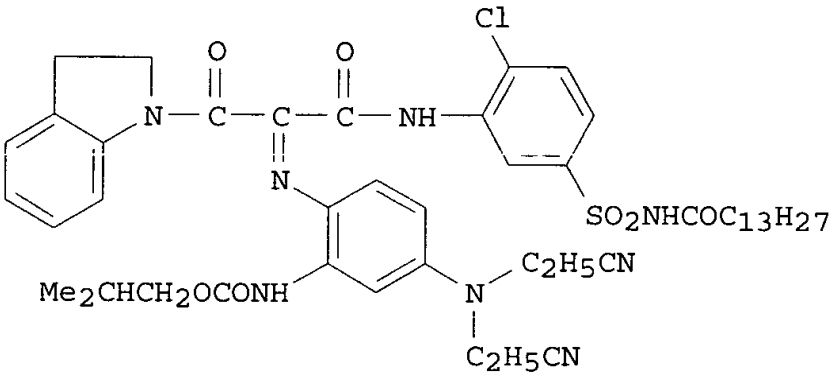


IC ICM C09D011-00
ICS B41J002-01; B41M005-00
CC 42-12 (Coatings, Inks, and Related Products)
Section cross-reference(s): 41
ST azomethine oil dye aq emulsion **jet ink** prepn
IT Dyes
(azomethine; prepn. of water-resistant **ink-jet ink** compn. with good discharge and storage stability)
IT Water-resistant materials
(inks; prepn. of water-resistant **ink-jet ink** compn. with good discharge and storage stability)
IT **Inks**
(**jet-printing**; prepn. of water-resistant **ink-jet ink** compn. with good discharge and storage stability)
IT Dyes
(oil-sol.; prepn. of water-resistant **ink-jet ink** compn. with good discharge and storage stability)
IT Dispersion (of materials)
(prepn. of water-resistant **ink-jet ink** compn. with good discharge and storage stability)
IT Inks
(water-resistant; prepn. of water-resistant **ink-jet ink** compn. with good discharge and storage stability)
IT Solvents
(with high-b.p.; prepn. of water-resistant **ink-jet ink** compn. with good discharge and storage stability)
IT 577-11-7, Sodium dioctylsulfosuccinate
(prepn. of water-resistant **ink-jet ink** compn. with good discharge and storage stability)
IT **56-81-5**, **Glycerin**, uses 111-46-6, Diethylene glycol, uses 1330-78-5 129877-64-1
(prepn. of water-resistant **ink-jet ink** compn. with good discharge and storage stability)
IT 5844-01-9, C.I. Solvent Yellow 28 118150-13-3 346709-26-0 **358342-91-3**
(prepn. of water-resistant **ink-jet ink** compn. with good discharge and storage stability)

L43 ANSWER 8 OF 11 HCA COPYRIGHT 2003 ACS
135:305326 Coloring compositions containing azomethine dye for **ink-jet inks**. Kawagishi, Toshio; Kimura, Keizo (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2001288381 A2 20011016, 47 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-102498 20000404.
GI



I



II

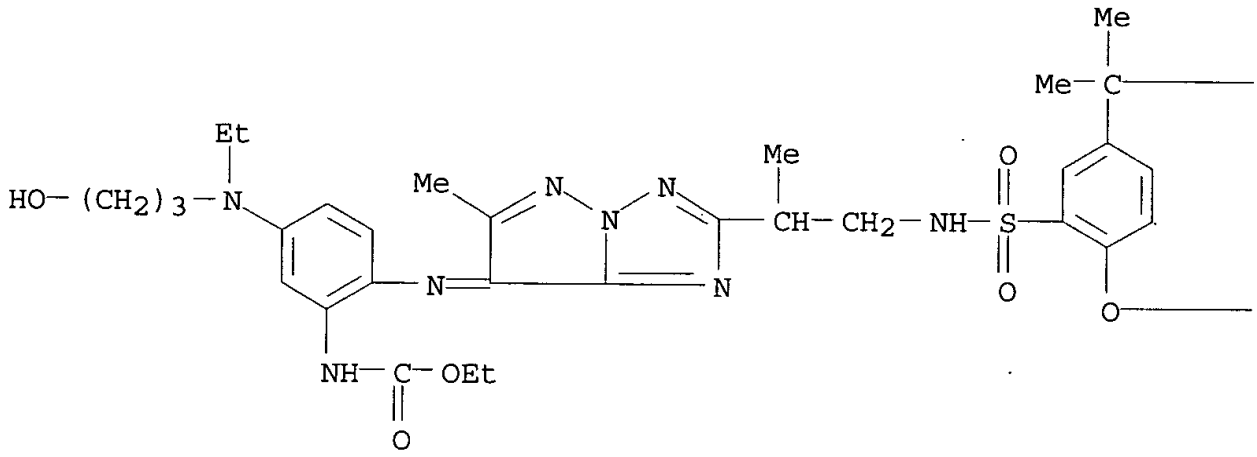
AB The compn. contains oil-sol. azomethine dye I (Q = at. group necessary for VIS and/or near IR absorption; R1 = H, acyl, aryloxycarbonyl, alkoxycarbonyl, carbamoyl, alkyl and arylsulfonyl, sulfamoyl, phosphinyl; R2, R3 = H, alkyl, aryl, heterocycyl, ring formed from R2 and R3) dispersed in an aq. medium. The coloring compns. are useful in **ink-jet inks** for aq. writing inks, aq. printing inks, aq. recording inks, etc. providing high-quality images independently of paper. Thus, 42 parts dispersion contg. acrylic acid-sec-Bu acrylate-acrylic copolymer and II was mixed with diethylene glycol 8, **glycerin** 8, triethylene glycol monobutyl ether 5, sodium hexaethylene glycol monododecyl ether sulfate 0.5, sodium di-2-ethylhexyl sulfosuccinate 0.5, and ion-exchanged H2O 36 parts to give a water-thinned **ink-jet ink** showing good good color tone, paper dependency, and water and light resistance.

IT **365540-31-4 365540-32-5 365540-33-6**
(dye; coloring compns. contg. azomethine dyes for **ink-jet inks**)

RN 365540-31-4 HCA

CN Carbamic acid, [5-[ethyl(3-hydroxypropyl)amino]-2-[[6-methyl-2-[1-methyl-2-[[[2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)phenyl]sulfonyl]amino]ethyl]-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]phenyl]-, ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

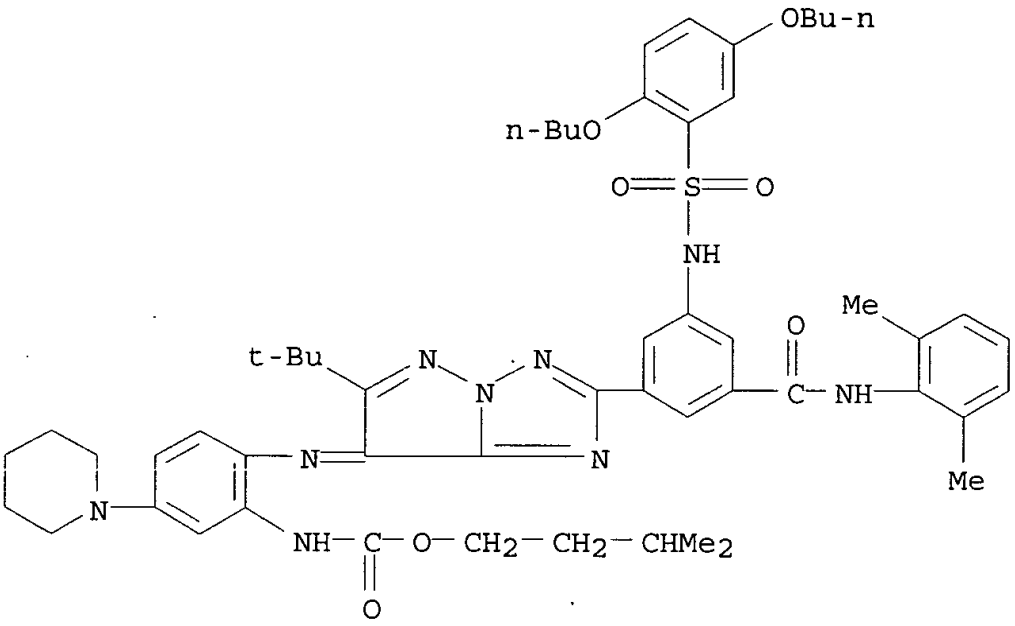


PAGE 1-B

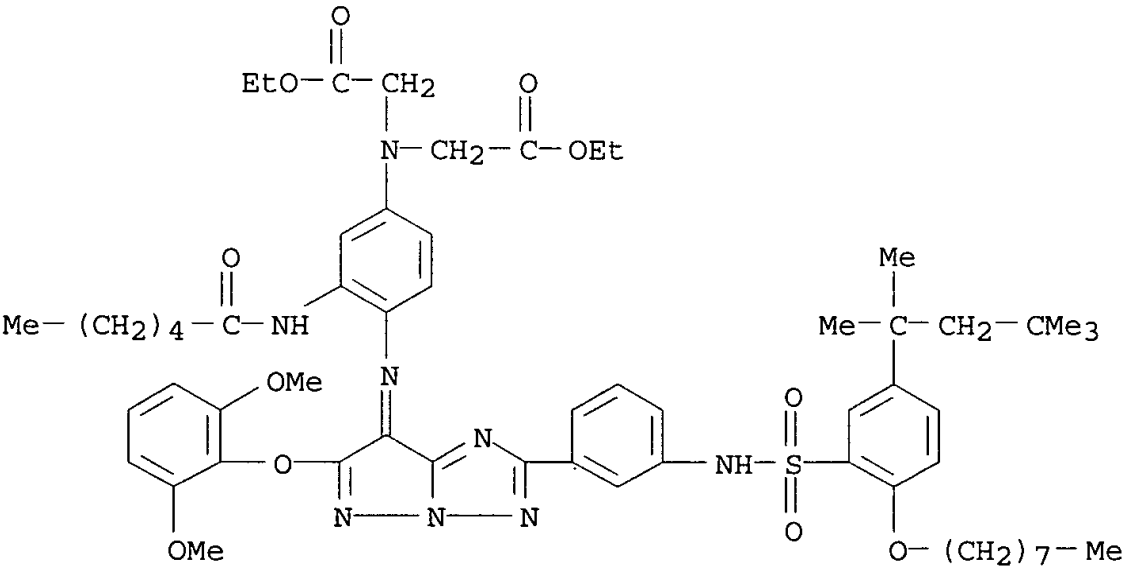
— CH_2— CMe_3

— $(CH_2)_7$— Me

RN 365540-32-5 HCA
CN Carbamic acid, [2-[[2-[3-[[(2,5-dibutoxyphenyl)sulfonyl]amino]-5-[[(2,6-dimethylphenyl)amino]carbonyl]phenyl]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]-5-(1-piperidinyl)phenyl]-, 3-methylbutyl ester (9CI) (CA INDEX NAME)



RN 365540-33-6 HCA
CN Glycine, N-[4-[[6-(2,6-dimethoxyphenoxy)-2-[3-[[[2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)phenyl]sulfonyl]amino]phenyl]-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]-3-[(1-oxohexyl)amino]phenyl]-N-(2-ethoxy-2-oxoethyl)-, ethyl ester (9CI) (CA INDEX NAME)



IC ICM C09B067-46
ICS B41J002-01; B41M005-00; C09B055-00; C09D011-00

CC 42-12 (Coatings, Inks, and Related Products)
Section cross-reference(s): 41
ST azomethine dye coloring compn **jet printing ink**
IT Polyoxyalkylenes, uses
(acrylic, graft; coloring compns. contg. azomethine dyes for **ink-jet inks**)
IT Dyes
(azomethine; coloring compns. contg. azomethine dyes for **ink-jet inks**)
IT Polyesters, uses
(coloring compns. contg. azomethine dyes for **ink-jet inks**)
IT Acrylic polymers, uses
(fluorine-contg.; coloring compns. contg. azomethine dyes for **ink-jet inks**)
IT **Inks**
(**jet-printing**, water-thinned; coloring compns. contg. azomethine dyes for **ink-jet inks**)
IT Inks
(printing, water-thinned; coloring compns. contg. azomethine dyes for **ink-jet inks**)
IT Inks
(writing, water-thinned; coloring compns. contg. azomethine dyes for **ink-jet inks**)
IT 67906-95-0, Acrylic acid-butyl acrylate-methyl methacrylate copolymer sodium salt 113032-06-7, Ethylene glycol-isophthalic acid-neopentyl glycol-5-sulfoisophthalic acid-terephthalic acid copolymer 363158-97-8 363158-99-0 363159-04-0 363607-63-0 363607-65-2 363607-66-3
(coloring compns. contg. azomethine dyes for **ink-jet inks**)
IT 365540-24-5 365540-25-6 365540-26-7 365540-27-8 365540-28-9 365540-29-0 365540-30-3 **365540-31-4 365540-32-5 365540-33-6**
(dye; coloring compns. contg. azomethine dyes for **ink-jet inks**)

L43 ANSWER 9 OF 11 HCA COPYRIGHT 2003 ACS
135:274342 Manufacture of **ink-jet ink** and **ink-jet** recording method. Arakawa, Jun (Fuji Photo Film Co., Ltd., Japan). Eur. Pat. Appl. EP 1136530 A2 20010926, 57 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (English). CODEN: EPXXDW. APPLICATION: EP 2001-106957 20010320. PRIORITY: JP 2000-78454 20000321.
AB An **jet printing ink** with good discharge stability comprises a dye dispersion produced by dissolving an oil-sol. dye (structures specified) in a high-boiling org. solvent (b.p. .gtoreq.150.degree.) having a specific inductive capacity at 25.degree. of 3-12, emulsifying the oil-sol. dye in a

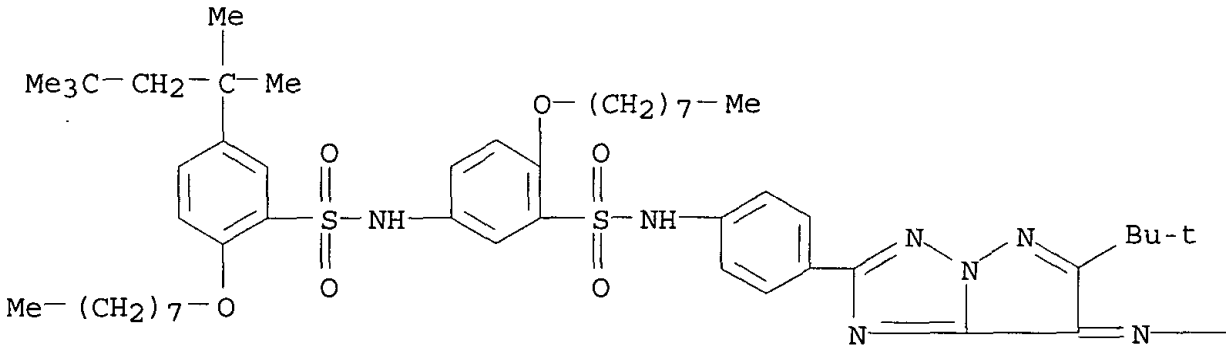
H2O-based medium and dispersing the dye at a pressure of .gtoreq.50 MPa using a high-pressure emulsifying and dispersing device. A typical title ink was manufd. by dissolving an oil-sol. pyrazolotriazole azomethine dye and dioctyl Na sulfosuccinate in a mixt. of (MeC6H4O)3PO, (Me3CCH2CHMeCH2O)3PO and EtOAc, adding H2O to the stirred mixt., dispersing the resulting emulsion in a high-pressure (600 bar) device, removing EtOAc by distn. and adding diethylene glycol, **glycerol**, Surfynol 465 and H2O to the resulting dispersion.

IT **358342-91-3**
(oil-sol. dye; manuf of **ink-jet ink** and **ink-jet** recording method)

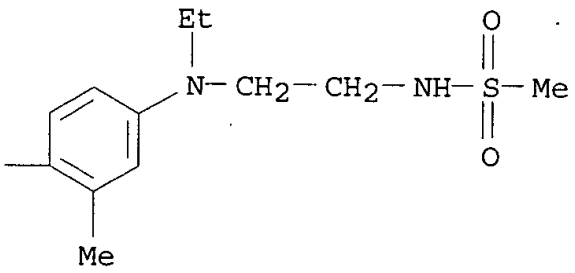
RN 358342-91-3 HCA

CN Benzenesulfonamide, N-[3-[[[4-[6-(1,1-dimethylethyl)-7-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]sulfonyl]-4-(octyloxy)phenyl]-2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

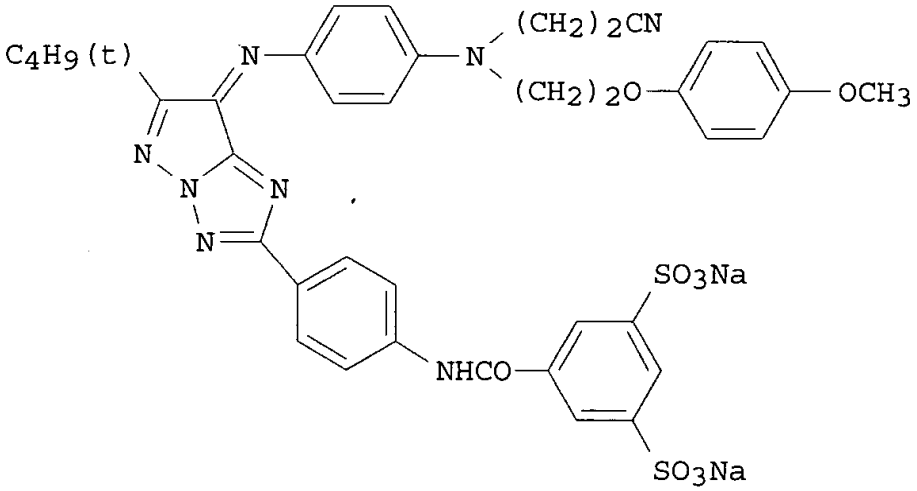


IC ICM C09D011-00
ICS C09B055-00
CC 42-12 (Coatings, Inks, and Related Products)
ST **jet printing ink** manuf; pyrazolotriazole azomethine oil soluble dye **jet printing ink** manuf; cresyl phosphate solvent **jet printing ink** manuf; octyl phosphate solvent **jet printing ink** manuf; dielec const org solvent aq dispersion **jet printing ink**
IT Dyes
(azomethine, pyrazolotriazole derivs.; manuf of **ink-jet ink** and **ink-jet** recording method)
IT **Inks**
(**jet-printing**; manuf of **ink-jet ink** and **ink-jet** recording method)
IT **Ink-jet printing**
(manuf of **ink-jet ink** and **ink-jet** recording method)
IT Dyes
(oil-sol., azomethine, pyrazolotriazole derivs.; manuf of **ink-jet ink** and **ink-jet** recording method)
IT Solvents
(org., high-boiling; manuf of **ink-jet ink** and **ink-jet** recording method)
IT 577-11-7, Dioctyl sodium sulfosuccinate
(emulsifier; manuf of **ink-jet ink** and **ink-jet** recording method)
IT **358342-91-3**
(oil-sol. dye; manuf of **ink-jet ink** and **ink-jet** recording method)

IT 108-88-3, Toluene, uses 141-78-6, Ethyl acetate, uses 827-52-1, Cyclohexylbenzene 1330-78-5, Tricresyl phosphate 129877-64-1
(solvent; manuf of **ink-jet ink** and **ink-jet** recording method)

L43 ANSWER 10 OF 11 HCA COPYRIGHT 2003 ACS
134:18559 Preparation of water-resistant pigments with good hue and lightfastness and their use for **ink-jet inks**. Fujiwara, Yoshinori; Kamio, Takayoshi (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2000327969 A2 20001128, 26 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-141979 19990521.

GI



I

AB The pigments are compds. A(LB)q, where A is a pigment residue absorbing visible and/or IR light, L is divalent connection group, B is a group capable of suppressing color fading and q=1 or 2 and A or/and B may contain sulfonic acid or/and carboxyl groups. One example of the pigments is compd. I which was prepd. by coupling of a 1H-pyrazolo[1,5-b][1,2,4]triazole deriv. with a p-nitrosoaniline deriv. Heating the mixt. of I 4, diethylene glycol 9, tetraethylene glycol monobutyl ether 9, **glycerin** 7, diethanolamine 1 and water 70 parts at 30-40.degree. for 1 h gave a waterborne ink with good claimed properties.

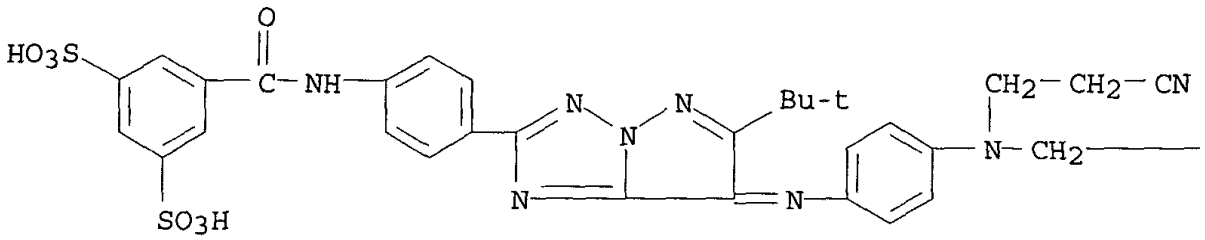
IT **309932-37-4P 309932-39-6P**
(prepn. of water-resistant pigments with good hue and lightfastness and use for **ink-jet inks**)

RN 309932-37-4 HCA

CN 1,3-Benzenedisulfonic acid, 5-[[[4-[7-[[4-[(2-cyanoethyl)[2-(4-methoxyphenoxy)ethyl]amino]phenyl]imino]-6-(1,1-dimethylethyl)-7H-

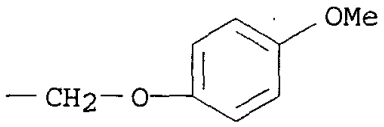
pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]carbonyl]-, disodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



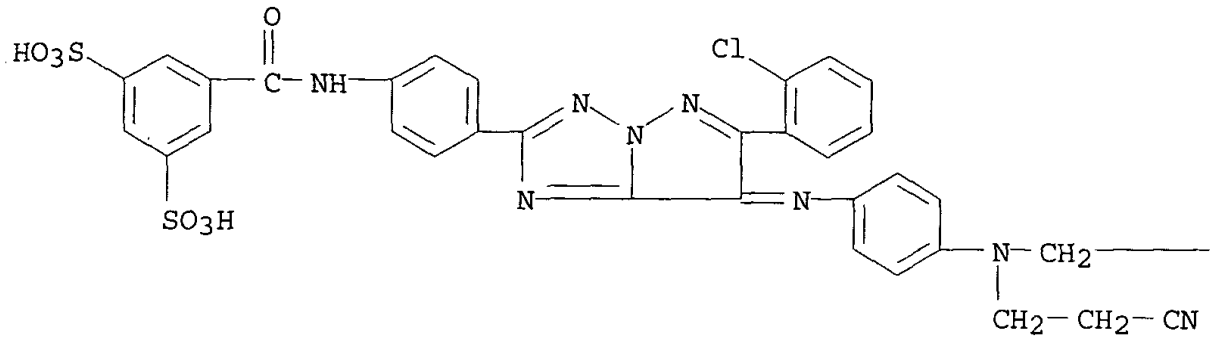
●2 Na

PAGE 1-B



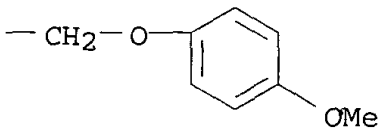
RN 309932-39-6 HCA
CN 1,3-Benzenedisulfonic acid, 5-[[[4-[6-(2-chlorophenyl)-7-[[4-[(2-cyanoethyl)[2-(4-methoxyphenoxy)ethyl]amino]phenyl]imino]-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]carbonyl]-, disodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



● 2 Na

PAGE 1-B



IC ICM C09D011-00
ICS B41J002-01; B41M005-00

CC 41-8 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
Section cross-reference(s): 42

ST water resistant pigment prepn **ink jet ink**; hue lightfastness pigment prepn; visible IR light absorbing pigment prepn; color fading resistance pigment prepn; pyrazolo triazole nitrosoaniline coupling pigment prepn

IT **Inks**
(**jet-printing**, water-thinned; prepn. of water-resistant pigments with good hue and lightfastness and use for **ink-j t inks**)

IT Pigments, nonbiological

(prepn. of water-resistant pigments with good hue and lightfastness and use for **ink-jet inks**)

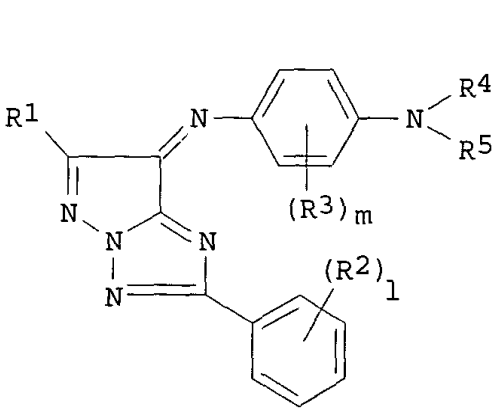
IT **309932-37-4P 309932-39-6P** 309932-41-0P
309932-43-2P
(prepn. of water-resistant pigments with good hue and lightfastness and use for **ink-jet inks**)

IT 20514-27-6 105701-18-6 136640-14-7 136640-26-1 227466-22-0
309932-28-3 309932-32-9 309932-35-2
(reactant; prepn. of water-resistant pigments with good hue and lightfastness and use for **ink-jet inks**)

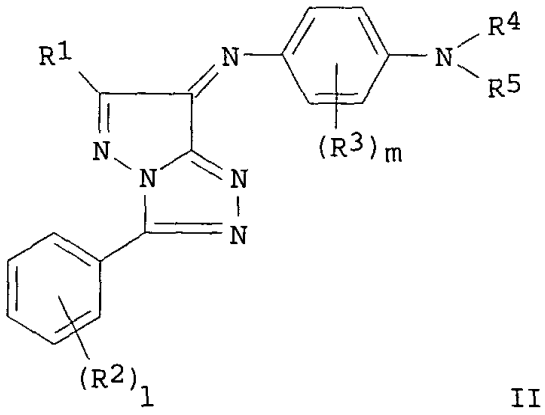
L43 ANSWER 11 OF 11 HCA COPYRIGHT 2003 ACS

131:46147 Magenta inks containing water-soluble pyrazolotriazole dyes and **ink-jet printing** method using them. Arai, Kazumi; Kamio, Takayoshi (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 11158422 A2 19990615 Heisei, 18 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1997-324877 19971126.

GI



I



II

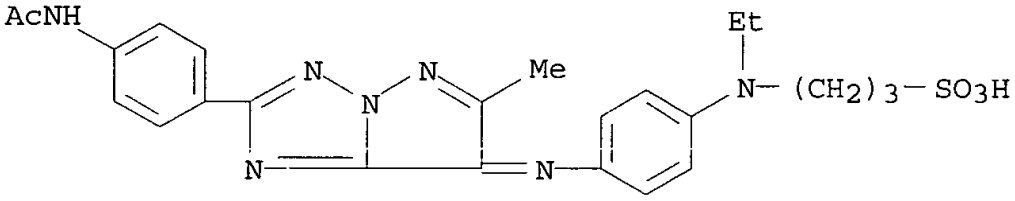
AB The inks contain I or II (R1-3 = H, halo, alkyl, cycloalkyl, aralkyl, aryl, heterocycle, alkoxy, aryloxy, cyano, acylamino, sulfonylamino, ureido, alkoxycarbonylamino, alkylthio, arylthio, alkoxycarbonyl, carbamoyl, sulfamoyl, sulfonyl, acyl, amino; R4, R5 = H, alkyl, cycloalkyl, aralkyl, aryl; R4 and R5, R3 and R4, or R3 and R5 may form a ring; .gtoreq.1 of R1-5 is water-sol. group; l, m = 0-4). Thus, an ink contg. I [R1 = Me, R2 = p-NHAc, R4 = Et, R5 = (CH2)3SO3K, m = 0] 4, diethylene glycol 9, tetraethylene glycol Bu ether 9, **glycerin** 7, diethanolamine 1, and H2O 70 parts was used in **ink-jet printing** to give

magenta images with good lightfastness.

IT **227466-16-2 227466-17-3 227466-18-4 227466-19-5 227466-20-8 227466-21-9 227466-23-1**
(**ink-jet** magenta **inks** contg. water-sol. pyrazolotriazole dyes)

RN 227466-16-2 HCA

CN 1-Propanesulfonic acid, 3-[[4-[[2-[4-(acetylamino)phenyl]-6-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]phenyl]ethylamino]-, monopotassium salt (9CI) (CA INDEX NAME)

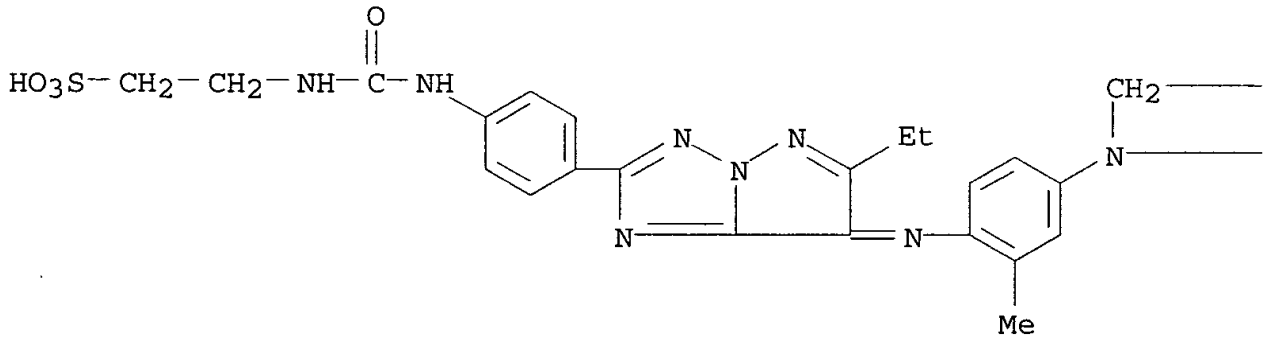


● K

RN 227466-17-3 HCA

CN 1-Propanesulfonic acid, 3-[[4-[[6-ethyl-2-[4-[[[(2-sulfoethyl)amino]carbonyl]amino]phenyl]-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]-3-methylphenyl](2-hydroxyethyl)amino]-, disodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



●2 Na

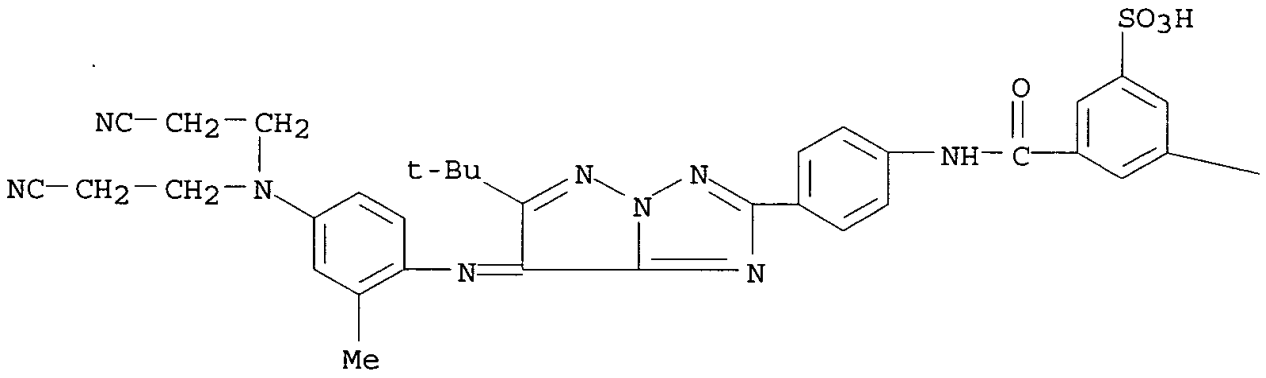
PAGE 1-B

—— CH_2— OH

— $(CH_2)_3$ — SO_3H

RN 227466-18-4 HCA
CN 1,3-Benzenedisulfonic acid, 5-[[[4-[7-[[4-[bis(2-cyanoethyl)amino]-2-methylphenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]carbonyl]-, disodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



● 2 Na

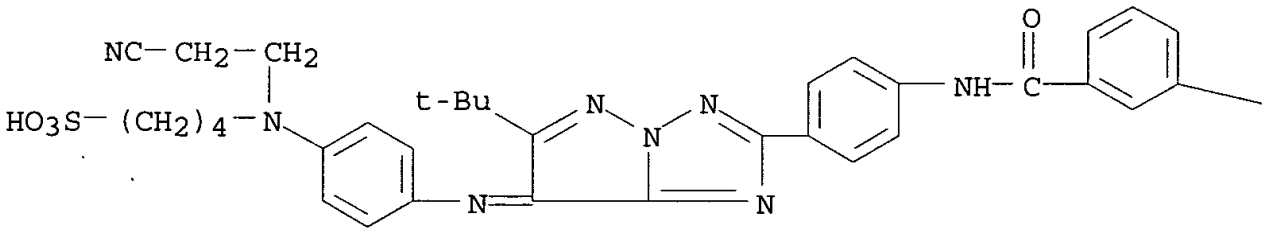
PAGE 1-B

— SO_3H

RN 227466-19-5 HCA
CN Benzenesulfonic acid, 3-[[[4-[7-[[4-[(2-cyanoethyl)(4-sulfobutyl)amino]phenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]carbonyl]-, disodium salt (9CI)

(CA INDEX NAME)

PAGE 1-A



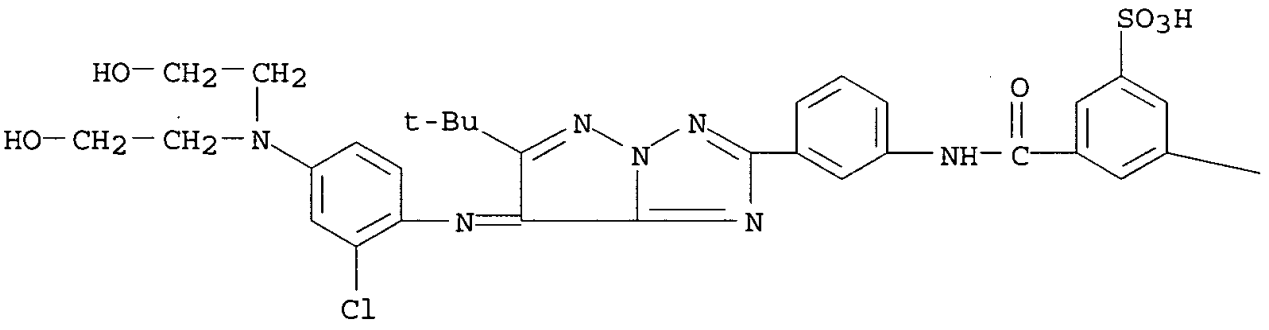
● 2 Na

PAGE 1-B

SO_3H

RN 227466-20-8 HCA
CN 1,3-Benzenedisulfonic acid, 5-[[[3-[7-[[4-[bis(2-hydroxyethyl)amino]-2-chlorophenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]carbonyl]-, disodium salt (9CI) (CA INDEX NAME)

PAGE 1-A

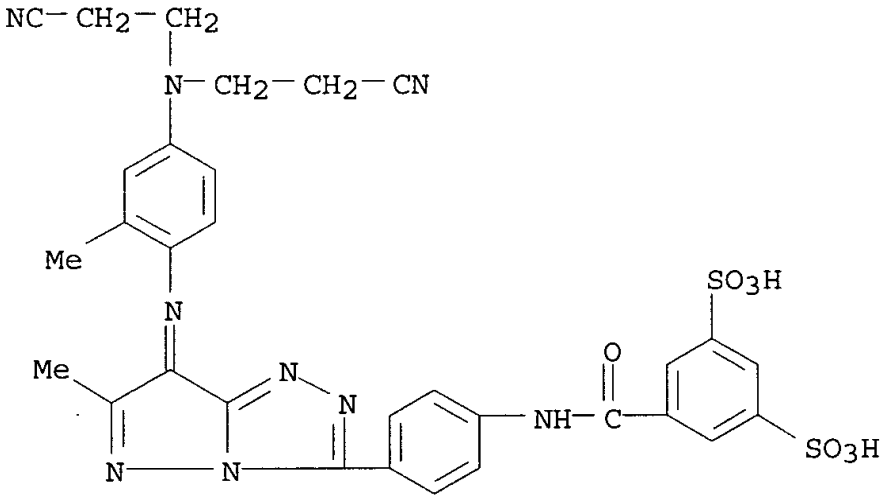


2 Na

PAGE 1-B

$-SO_3H$

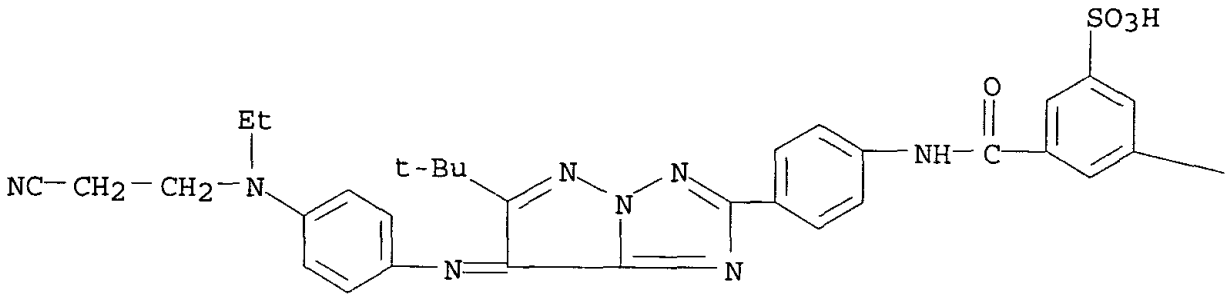
RN 227466-21-9 HCA
CN 1,3-Benzenedisulfonic acid, 5-[[[4-[7-[[4-[bis(2-cyanoethyl)amino]-2-methylphenyl]imino]-6-methyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl]phenyl]amino]carbonyl]-, disodium salt (9CI) (CA INDEX NAME)



● 2 Na

RN 227466-23-1 HCA
CN 1,3-Benzenedisulfonic acid, 5-[[[4-[7-[[4-[(2-cyanoethyl)ethylamino]phenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]carbonyl]-, disodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



●2 Na

PAGE 1-B

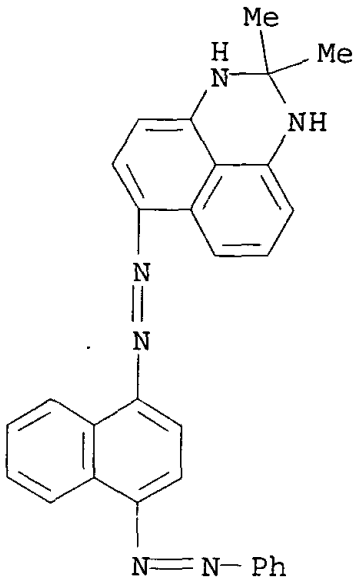
SO3H

IC ICM C09D011-00
ICS B41M005-00; C09B026-02; C09B057-00
CC 42-12 (Coatings, Inks, and Related Products)
ST pyrazolotriazole dye magenta **ink jet printing**
IT **Ink-jet printing**
(**ink-jet** magenta **inks** contg. water-sol. pyrazolotriazole dyes)
IT **Inks**
(**jet-printing**; **ink-jet** magenta **inks** contg. water-sol. pyrazolotriazole dyes)
IT Dyes
(water-sol.; **ink-jet** magenta **inks** contg. water-sol. pyrazolotriazole dyes)
IT 55447-93-3P
(**ink-jet** magenta **inks** contg. water-sol. pyrazolotriazole dyes)
IT **227466-16-2 227466-17-3 227466-18-4 227466-19-5 227466-20-8 227466-21-9 227466-23-1**
(**ink-jet** magenta **inks** contg. water-sol. pyrazolotriazole dyes)

IT 19089-55-5
(reaction with aminophenol deriv.; **ink-jet** magenta **inks** contg. water-sol. pyrazolotriazole dyes)
IT 227466-22-0P
(reaction with nitroso compd.; **ink-jet** magenta **inks** contg. water-sol. pyrazolotriazole dyes)
IT 152828-25-6
(reaction with sodiosulfobenzoic acid deriv.; **ink-jet** magenta **inks** contg. water-sol. pyrazolotriazole dyes)

=> d l44 1-20 cbib abs hitstr hitind

L44 ANSWER 1 OF 20 HCA COPYRIGHT 2003 ACS
133:90840 Water-thinned **ink-jet inks** with good fixation. Sawada, Michitaka; Nakano, Yukihiro; Mizushima, Ryuma (Kao Corp., Japan). Jpn. Kokai Tokkyo Koho JP 2000191967 A2 20000711, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1998-372505 19981228.
AB The inks contain (A) an aq. dispersion of oil-sol. black dyes or carbon black encapsulated with vinyl polymers, and (B) an aq. dispersion of carbon black having same ion species of A, wherein the solids ratio of dispersions A/B is 0.5-8. Thus, an ink contg. an aq. dispersion of carbon black encapsulated by a polymer (prepd. by polymn. of styrene, Bu acrylate, polyethylene glycol methacrylate, acrylonitrile-styrene macromonomer AN-6, dimethylaminoethyl methacrylate, 2-hydroxyethyl methacrylate, silicone macromonomer FM 0711, and neutralizing with gluconic acid) 30, an aq. dispersion of ethylpyridinium group-contg. carbon black 20, **glycerol** 5, other additives 8, and water 37 parts gave high-d. printing images with good resistance to water, soiling, and scratch.
IT **4197-25-5**
(water- and scratch-resistant water-thinned **ink-jet inks** with good fixation)
RN 4197-25-5 HCA
CN 1H-Perimidine, 2,3-dihydro-2,2-dimethyl-6-[[4-(phenylazo)-1-naphthalenyl]azo]- (9CI) (CA INDEX NAME)



IC ICM C09D011-00
ICS B41J002-01; B41M005-00
CC 42-12 (Coatings, Inks, and Related Products)
ST carbon black encapsulation ink; water soiling scratch resistance **jet printing ink**
IT Carbon black, uses
(Printex 90; water- and scratch-resistant water-thinned **ink-jet inks** with good fixation)
IT Dyes
(black, oil-sol.; water- and scratch-resistant water-thinned **ink-jet inks** with good fixation)
IT **Inks**
(**jet-printing**, water-thinned; water- and scratch-resistant water-thinned **ink-jet inks** with good fixation)
IT Macromonomers
(water- and scratch-resistant water-thinned **ink-jet inks** with good fixation)
IT 179912-77-7, 3-Amino-N-ethylpyridinium bromide
(carbon black treated by; water- and scratch-resistant water-thinned **ink-jet inks** with good fixation)
IT 282101-53-5P 282101-55-7P 282101-57-9P
(water- and scratch-resistant water-thinned **ink-jet inks** with good fixation)
IT **4197-25-5**
(water- and scratch-resistant water-thinned **ink-jet inks** with good fixation)

L44 ANSWER 2 OF 20 HCA COPYRIGHT 2003 ACS
132:23854 **Ink jet printing** with azo dye

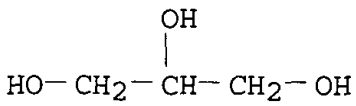
metal complex. Weber, Helmut; Evans, Steven (Eastman Kodak Company, USA). U.S. US 5997622 A 19991207, 9 pp. (English). CODEN: USXXAM. APPLICATION: US 1998-203258 19981201.

AB An **ink jet printing** method comprises the steps of: (A) providing an **ink jet printer** that is responsive to digital data signals; (B) loading the printer with ink-receptive substrates; (C) loading the printer with an **ink jet ink** compn. comprising a carrier and a polyvalent transition metal complex of an 8-(heterocyclylazo)-5-hydroxyquinoline; and (D) printing on an ink-receptive substrate using the **ink jet ink** in response to the digital data signals. The metal complex azo dyes have light stability comparable to that of prior-art dyes and superior color purity. An example for the prodn. of the Ni 1:2 complex of 5-hydroxy-2-methyl-8-(2-pyridylazo)-3-quinolinecarboxylic acid (.lambda.max 552 nm) was provided.

IT **56-81-5**, 1,2,3-Propanetriol, uses
(in azo dye metal complex-based **inks** for **jet printing**)

RN 56-81-5 HCA

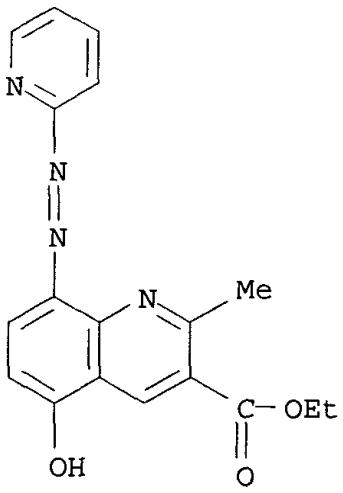
CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



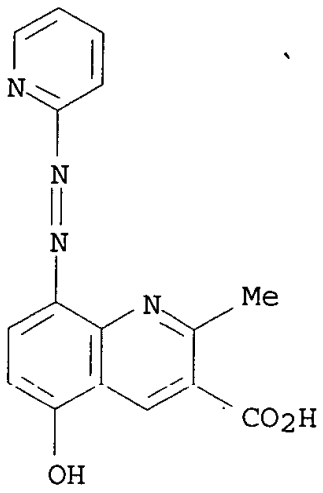
IT **251959-67-8P 251959-68-9P**, 5-Hydroxy-2-methyl-8-(2-pyridylazo)-3-quinolinecarboxylic acid
(intermediate; prodn. of azo dye metal complex for **ink jet printing**)

RN 251959-67-8 HCA

CN 3-Quinolinecarboxylic acid, 5-hydroxy-2-methyl-8-(2-pyridinylazo)-, ethyl ester (9CI) (CA INDEX NAME)



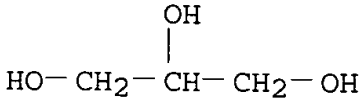
RN 251959-68-9 HCA
CN 3-Quinolinecarboxylic acid, 5-hydroxy-2-methyl-8-(2-pyridinylazo)-(9CI) (CA INDEX NAME)



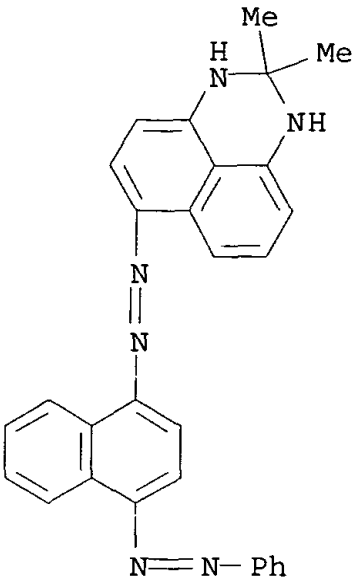
IC ICM C09D011-02
NCL 106031480
CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
Section cross-reference(s): 42
ST azo dye complex prodn **jet printing**; **ink** **jet printing** azo dye complex
IT Humectants
(in azo dye metal complex-based **inks** for **jet printing**)
IT **Inks**
(**jet-printing**, water-thinned; prodn. of azo dye metal complexes for)
IT **Ink-jet printing**
(using azo dye metal complexes)
IT Azo dyes
(water-sol.; prodn. of azo dye metal complexes for **ink** **jet printing**)
IT 251959-60-1 251959-61-2 251959-62-3 251959-63-4 251959-64-5 251959-66-7
(azo dye metal complexes for **ink** **jet** **printing**)
IT **56-81-5**, 1,2,3-Propanetriol, uses 111-46-6, uses 112-34-5, Diethylene glycol monobutyl ether 7732-18-5, Water, uses
(in azo dye metal complex-based **inks** for **jet** **printing**)
IT **251959-67-8P** **251959-68-9P**, 5-Hydroxy-2-methyl-8-(2-pyridylazo)-3-quinolinecarboxylic acid
(intermediate; prodn. of azo dye metal complex for **ink** **jet printing**)

IT 251959-65-6P
(prodn. of azo dye metal complex for **ink jet printing**)
IT 4930-98-7, 2-Hydrazinopyridine 6018-89-9, Nickel diacetate tetrahydrate 128958-79-2, Ethyl 5,8-dimethoxy-2-methyl-3-quinolinecarboxylate
(starting material; prodn. of azo dye metal complex for **ink jet printing**)

L44 ANSWER 3 OF 20 HCA COPYRIGHT 2003 ACS
131:230118 Aqueous inks suitable for **ink-jet printing** with freedom from nozzle clogging. Sakuma, Tadashi; Aita, Kenji (Kao Corp., Japan). Jpn. Kokai Tokkyo Koho JP 11256083 A2 19990921 Heisei, 7 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1998-58642 19980310.
AB The inks contain (A) neutralized polyesters having acid no. 1-100 mg-KOH/g, (B) water-insol. pigments which adhere to the A, and (C) water-sol. hydroxy compds. selected from R1R2NXCOOM, R1R2R3N+XCOO- or/and R1R2NCONR3R4 [R1-4 = H, C1-5 alkyl, (optionally amino-substituted) C2-6 acyl; X = C1-5 alkylene; M = H, alkali metal, alk.-earth metals; provided that R1, R2 are not H at the same time], and amino acids or their salts, and are prepd. in an aq.-org. soln. by dispersion, then removing the org. solvent. Thus, mixing a polyester derived from polyoxypropylene 2,2-bis(4-hydroxyphenyl)propane, dimer acids, fumaric acid and trimellitic anhydride, 150, with Oil Black 860 (oil-sol. pigment) 70 dissolved in THF 500, dimethylethanolamine 12.6, and NaOH 1.03, adding water 960, .beta.-naphththalenesulfonic acid-HCHO condensate 3 and N-methylglycine 50 g, mixing and distg. in vacuo to remove THF gave an ink dispersion with good resistance to clogging.
IT **56-81-5**, 1,2,3-Propanetriol, uses
(neutralizing aids; aq. inks suitable for **ink-jet printing** with freedom from nozzle clogging)
RN 56-81-5 HCA
CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



IT **4197-25-5**, Orient Oil Black 860
(pigment; aq. inks suitable for **ink-jet printing** with freedom from nozzle clogging)
RN 4197-25-5 HCA
CN 1H-Perimidine, 2,3-dihydro-2,2-dimethyl-6-[[4-(phenylazo)-1-naphthalenyl]azo]- (9CI) (CA INDEX NAME)



IC ICM C09D011-00
ICS B41M005-00; C09D167-00
CC 42-12 (Coatings, Inks, and Related Products)
ST anticlogging **ink jet printing** **ink** polyester supported pigment; water based **ink** **jet printing ink** anticlogging
IT Amides, uses
(amino, neutralizing aids; aq. inks suitable for **ink-jet printing** with freedom from nozzle clogging)
IT Amino acids, uses
(anticlogging aids; aq. inks suitable for **ink-jet printing** with freedom from nozzle clogging)
IT Zwitterions
(aq. inks suitable for **ink-jet printing** with freedom from nozzle clogging)
IT Fatty acids, uses
(dimer acids, polyesters with alkoxylated bisphenol A and other dicarboxylic acids as pigment support; aq. inks suitable for **ink-jet printing** with freedom from nozzle clogging)
IT **Inks**
(**jet-printing**; aq. **inks** suitable for **ink-jet printing** with freedom from nozzle clogging)
IT 57-13-6D, Urea, compds., uses
(additives; aq. inks suitable for **ink-jet printing** with freedom from nozzle clogging)
IT 108-01-0, Dimethylethanolamine
(anticlogging aids; aq. inks suitable for **ink-jet printing** with freedom from nozzle clogging)
IT **56-81-5**, 1,2,3-Propanetriol, uses 57-13-6, Urea, uses

107-21-1, 1,2-Ethanediol, uses 107-97-1, N-Methylglycine 1310-73-2, Sodium hydroxide, uses
(neutralizing aids; aq. inks suitable for **ink-jet printing** with freedom from nozzle clogging)

IT 110-17-8D, Fumaric acid, polyesters with alkoxylated bisphenol A and other dicarboxylic acids 552-30-7D, Trimellitic anhydride, polyesters with alkoxylated bisphenol A and other dicarboxylic acids 37353-75-6D, Propoxylated Bisphenol A, polyesters with dimer acids and other dicarboxylic acids 96360-62-2, Ethoxylated bisphenol A-propoxylated bisphenol A-terephthalic acid-trimellitic anhydride copolymer
(pigment support; aq. inks suitable for **ink-jet printing** with freedom from nozzle clogging)

IT **4197-25-5**, Orient Oil Black 860
(pigment; aq. inks suitable for **ink-jet printing** with freedom from nozzle clogging)

L44 ANSWER 4 OF 20 HCA COPYRIGHT 2003 ACS

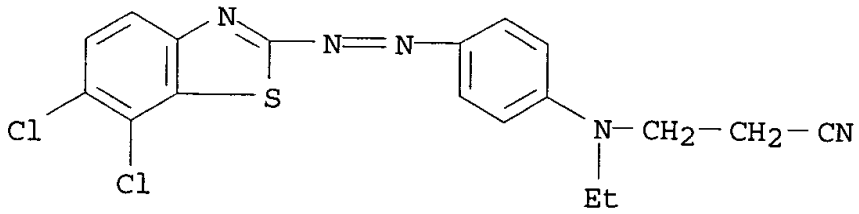
131:59936 Process for printing textile fiber materials with disperse dyes using the **jet**- and **ink-jet** process. Burglin, Marc; Mheidle, Mickael; Scheibli, Peter (Ciba Specialty Chemicals Holding Inc., Switz.). Eur. Pat. Appl. EP 924335 A1 19990623, 21 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (German). CODEN: EPXXDW. APPLICATION: EP 1998-811210 19981208. PRIORITY: EP 1997-810995 19971217.

AB Textile fibers are **jet**- and **ink-jet printed** using aq. inks contg. .gtoreq.1 disperse dye, an anionic copolymer and(or) nonionic block copolymer, and a dispersing agent. Suitable disperse dyes included carboxylic acid and(or) sulfo acid group-free nitro, amino, aminoketone, ketonimine, methine, polymethine, diphenylamine, quinoline-, benzimidazole, xanthene, oxazine and coumarin dyes, esp. anthraquinone and azo dyes. Thus, 2.0 parts 4-aniline-3-nitrobenzenesulfonanilide was mixed with 0.3 parts sulfonated condensation product of chloromethyldiphenyl isomer mixt. and naphthalene and 3.0 parts acrylic acid-styrene copolymer and the compn. was ground in a wet mill to give an av. particle size of 0.2-1.0 .mu.m. This paste was then mixed with surfactant 1.0, redispersing agent 3.7, preservative 0.2, moisture holding agent 20.0 and water 69.8 parts to give an ink having a dye content of 2%. A polyester fabric was printed with the ink using an **ink jet printer**, dried and then fixed in super-heated steam at 180.degree.. A brilliant yellow print with good wet- and lightfastness was obtained.

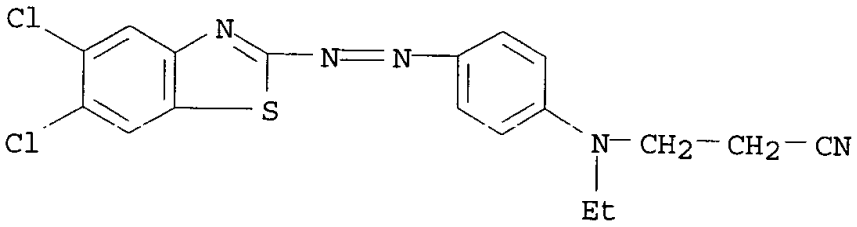
IT **25150-28-1 25176-89-0**
(disperse dye; process and **inks** for **ink-jet printing** of textile fibers with disperse dyes)

RN 25150-28-1 HCA

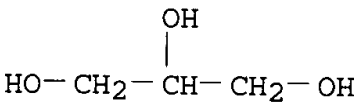
CN Propanenitrile, 3-[[4-[(6,7-dichloro-2-benzothiazolyl)azo]phenyl]ethylamino]- (9CI) (CA INDEX NAME)



RN 25176-89-0 HCA
CN Propanenitrile, 3-[[4-[(5,6-dichloro-2-benzothiazolyl)azo]phenyl]ethylamino]- (9CI) (CA INDEX NAME)



IT **56-81-5**, 1,2,3-Propanetriol, uses
(process and **inks** for **ink-jet printing** of textile fibers with disperse dyes)
RN 56-81-5 HCA
CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



IC ICM D06P005-00
ICS C09D011-00
CC 40-6 (Textiles and Fibers)
ST **ink jet printing** textile disperse dye; polyester fiber **ink jet printing**
IT Textile **printing**
Textile **printing**
(**ink-jet**; process and **inks** for **ink-jet printing** of textile fibers with disperse dyes)
IT **Inks**
(**jet-printing**; process and **inks** for **ink-jet printing** of textile fibers with disperse dyes)
IT Polyester fibers, processes
(process and **inks** for **ink-jet printing** of textile fibers with disperse dyes)
IT **Ink-jet printing**
Ink-jet printing

(textile; process and **inks** for **ink-jet printing** of textile fibers with disperse dyes)

IT 1594-08-7 2872-48-2 5124-25-4, 4-Anilino-3-nitrobenzenesulfonanilide 12217-80-0 13676-91-0 17418-58-5 18178-47-7 19800-42-1 **25150-28-1 25176-89-0** 32568-48-2 52372-39-1 227953-54-0
(disperse dye; process and **inks** for **ink-jet printing** of textile fibers with disperse dyes)

IT 25085-34-1
(process and **inks** for **ink-jet printing** of textile fibers with disperse dyes)

IT **56-81-5**, 1,2,3-Propanetriol, uses 91-20-3D, Naphthalene, reaction products with chloromethyldiphenyl, sulfonated, uses 111-46-6, uses 590-47-6, Betaine monohydrate 2832-19-1, N-Hydroxymethylchloroacetamide 41376-15-2D, reaction products with naphthalene, sulfonated 55348-40-8, Emulphor OPS 25 106392-12-5, Pluronic F108
(process and **inks** for **ink-jet printing** of textile fibers with disperse dyes)

L44 ANSWER 5 OF 20 HCA COPYRIGHT 2003 ACS

129:303802 Water-thinned magenta **inks** for **ink-j t** recording. Ishibashi, Daisuke (Konica Co., Japan). Jpn. Kokai Tokkyo Koho JP 10259331 A2 **19980929** Heisei, 17 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1997-64418 19970318.

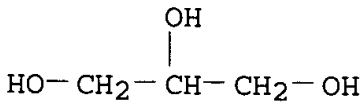
GI For diagram(s), see printed CA Issue.

AB The inks contain (A) water-sol. metal complexes formed from hydrophilic group-contg. arom. diazo compds. I [X1 = at. group to form (substituted) 5-7 membered heterocycle; Y1 = OH, CO2H, amino, alkoxy; a = 0-4; Z1 = (substituted) org. group; W1 = NR1, O, S, CR2; R1, R2 = H, (substituted) alkyl], and .gtoreq.1 metal selected from Ni, Co, Cr, and Cu and (B) H2O or water-sol. org. solvents. An ink composed of a Cu(II) complex with II, diethylene glycol, triethylene glycol Bu ether, a surfactant, and H2O gave an image with good light resistance.

IT **56-81-5**, 1,2,3-Propanetriol, uses
(solvent; water-thinned magenta **inks** for **ink-jet** recording with good light resistance)

RN 56-81-5 HCA

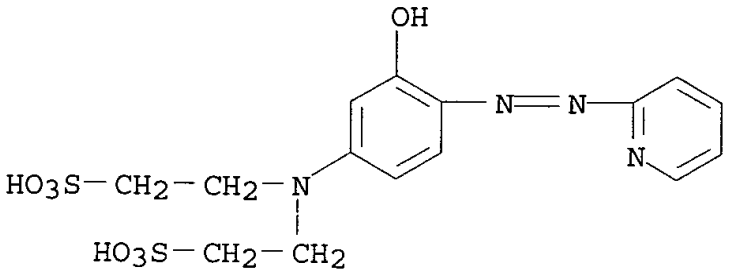
CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



IT **214406-10-7D**, copper complexes **214406-11-8D**, copper complexes **214406-12-9D**, copper complexes **214406-13-0D**, chromium complexes **214406-14-1D**,

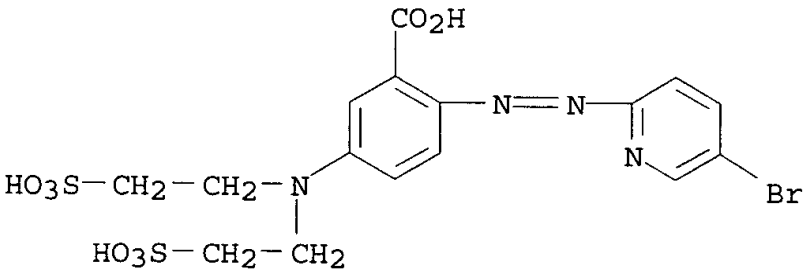
nickel complexes **214406-15-2D**, cobalt complexes **214406-17-4D**, nickel complexes **214406-18-5D**, nickel complexes **214406-19-6D**, cobalt complexes **214406-20-9D**, cobalt complexes
(water-thinned magenta **inks** for **ink-jet** recording with good light resistance)

RN 214406-10-7 HCA
CN Ethanesulfonic acid, 2,2'-[[3-hydroxy-4-(2-pyridinylazo)phenyl]imino]bis-, disodium salt (9CI) (CA INDEX NAME)



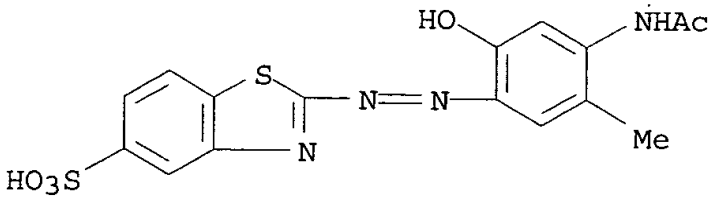
● 2 Na

RN 214406-11-8 HCA
CN Benzoic acid, 5-[bis(2-sulfoethyl)amino]-2-[(5-bromo-2-pyridinyl)azo]-, trisodium salt (9CI) (CA INDEX NAME)



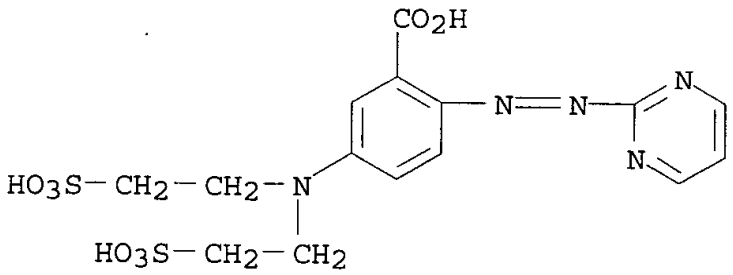
● 3 Na

RN 214406-12-9 HCA
CN 5-Benzothiazolesulfonic acid, 2-[[4-(acetylamino)-2-hydroxy-5-methylphenyl]azo]-, monosodium salt (9CI) (CA INDEX NAME)



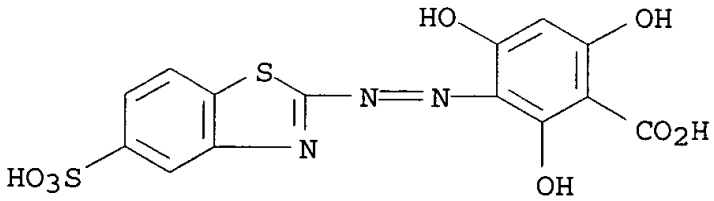
● Na

RN 214406-13-0 HCA
CN Benzoic acid, 5-[bis(2-sulfoethyl)amino]-2-(2-pyrimidinylazo)-, trisodium salt (9CI) (CA INDEX NAME)

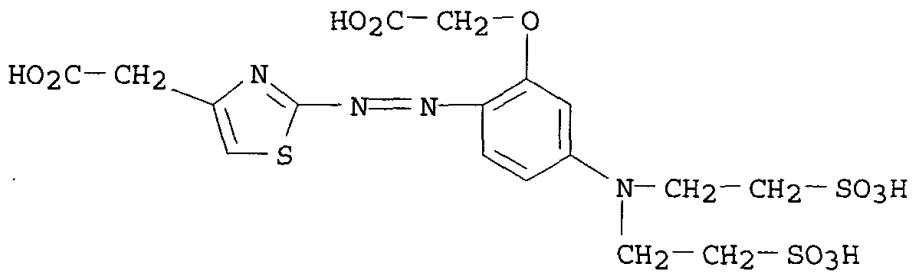


●3 Na

RN 214406-14-1 HCA
CN Benzoic acid, 2,4,6-trihydroxy-3-[(5-sulfo-2-benzothiazolyl)azo]- (9CI) (CA INDEX NAME)

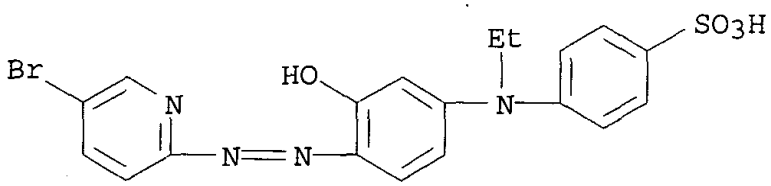


RN 214406-15-2 HCA
CN 4-Thiazoleacetic acid, 2-[[4-[bis(2-sulfoethyl)amino]-2-(carboxymethoxy)phenyl]azo]-, tetrasodium salt (9CI) (CA INDEX NAME)



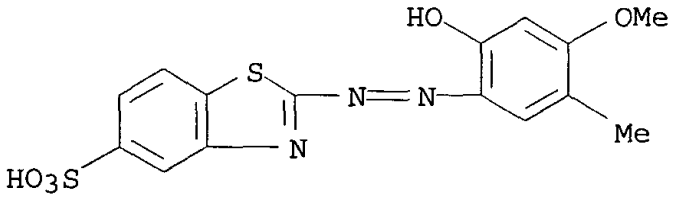
● 4 Na

RN 214406-17-4 HCA
CN Benzenesulfonic acid, 4-[[4-[(5-bromo-2-pyridinyl)azo]-3-hydroxyphenyl]ethylamino]-, monosodium salt (9CI) (CA INDEX NAME)



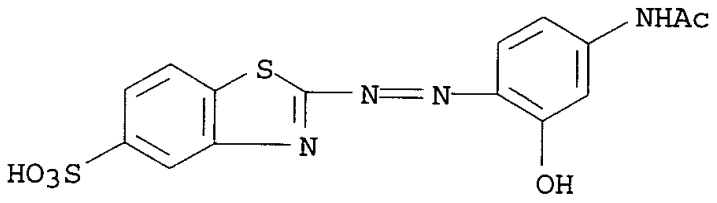
● Na

RN 214406-18-5 HCA
CN 5-Benzothiazolesulfonic acid, 2-[(2-hydroxy-4-methoxy-5-methylphenyl)azo]-, monosodium salt (9CI) (CA INDEX NAME)



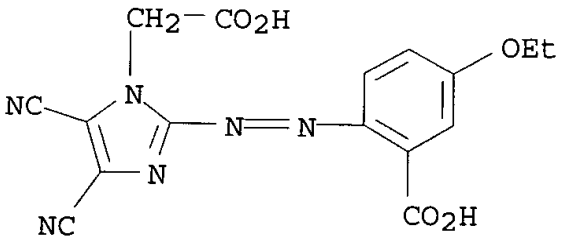
● Na

RN 214406-19-6 HCA
CN 5-Benzothiazolesulfonic acid, 2-[[4-(acetylamino)-2-hydroxyphenyl]azo]-, monosodium salt (9CI) (CA INDEX NAME)



● Na

RN 214406-20-9 HCA
CN 1H-Imidazole-1-acetic acid, 2-[(2-carboxy-4-ethoxyphenyl)azo]-4,5-dicyano-, disodium salt (9CI) (CA INDEX NAME)



●2 Na

IC ICM C09D011-00
ICS B41J002-01; C07D213-76; C07D233-64; C07D233-80; C07D233-90; C07D235-30; C07D237-20; C07D239-42; C07D239-84; C07D241-20; C07D263-48; C07D263-58; C07D271-04; C07D283-02; C07D285-135; C07D473-00; C09B045-14
CC 42-12 (Coatings, Inks, and Related Products)
ST magenta water thinned **ink jet printing** ; metal diazo complex magenta ink printing; light resistance magenta **jet printing ink**
IT **Inks**
(**jet-printing**, water-thinned; water-thinned magenta **inks** for **ink-jet** recording with good light resistance)
IT Light-resistant materials
(water-thinned magenta **inks** for **ink-jet** recording with good light resistance)
IT **56-81-5**, 1,2,3-Propanetriol, uses 111-29-5, 1,5-Pentanediol 111-46-6, uses 143-22-6, Triethylene glycol monobutyl ether 616-45-5, 2-Pyrrolidone
(solvent; water-thinned magenta **inks** for **ink-**

jet recording with good light resistance)

IT 7440-02-0D, Nickel, complexes with azo dyes, uses 7440-47-3D, Chromium, complexes with azo dyes, uses 7440-48-4D, Cobalt, complexes with azo dyes, uses 7440-50-8D, Copper, complexes with azo dyes, uses **214406-10-7D**, copper complexes **214406-11-8D**, copper complexes **214406-12-9D**, copper complexes **214406-13-0D**, chromium complexes **214406-14-1D**, nickel complexes **214406-15-2D**, cobalt complexes 214406-16-3D, cobalt complexes **214406-17-4D**, nickel complexes **214406-18-5D**, nickel complexes **214406-19-6D**, cobalt complexes **214406-20-9D**, cobalt complexes
(water-thinned magenta **inks** for **ink-jet** recording with good light resistance)

L44 ANSWER 6 OF 20 HCA COPYRIGHT 2003 ACS

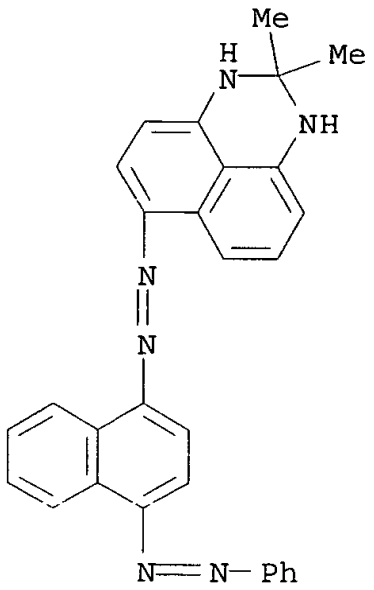
129:261861 Abrasion-, light-, and water-resistant water-thinned **inks** for **ink jet** recording with no nozzle clogging. Ueda, Takamasa (Minolta Camera Co., Ltd., Peop. Rep. China). Jpn. Kokai Tokkyo Koho JP 10245511 A2 **19980914** Heisei, 6 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1997-49127 19970304.

AB The inks contain nonspherical color resin fine powders, which are obtained by dispersing solns. contg. ionic group-contg. resins, org. solvents which can dissolve the resins, vinyl monomers, and coloring agents in aq. media and polymg. the vinyl monomers while removal of the solvents. Thus, transesterifying di-Me terephthalate 200, di-Me 5-sulfoisophthalate Na salt 10, ethylene glycol 150, and tricyclodecanedimethanol 30 parts, blending 100 parts of the resulting polyester with MEK 250, THF 250, a 7:3 styrene-Bu methacrylate mixt. 50, C.I. Disperse Blue 87 conc. cake 100 parts, and AIBN, adding 1000 parts H2O to the mixt., polymg. the monomers while removal of the solvents under heating, cooling, and dilg. with H2O gave a finely dispersed colored resin soln. with av. particle size 0.2 .mu.m. An aq. ink contg. 10% of the resin and 15% **glycerol** gave a sharp image with excellent abrasion, light, and water resistance.

IT **4197-25-5**, C.I. Solvent Black 3
(abrasion-, light-, and water-resistant water-thinned **inks** for **ink jet** recording with no nozzle clogging)

RN 4197-25-5 HCA

CN 1H-Perimidine, 2,3-dihydro-2,2-dimethyl-6-[[4-(phenylazo)-1-naphthalenyl]azo]- (9CI) (CA INDEX NAME)



IC ICM C09D011-00
ICS B41J002-01; B41M005-00
CC 42-12 (Coatings, Inks, and Related Products)
ST ionic polyester styrene polymer ink dispersibility; light resistance ink polyester styrene polymer; water resistance ink polyester styrene polymer; abrasion resistance ink polyester styrene polymer; anticlogging **jet printing ink**
polyester powder
IT Carbon black, uses
(Microjet C; abrasion-, light-, and water-resistant water-thinned **inks** for **ink jet** recording with no nozzle clogging)
IT Light-resistant materials
Water-resistant materials
(abrasion-, light-, and water-resistant water-thinned **inks** for **ink jet** recording with no nozzle clogging)
IT Polyesters, uses
(abrasion-, light-, and water-resistant water-thinned **inks** for **ink jet** recording with no nozzle clogging)
IT **Inks**
(**jet-printing**, water-thinned; abrasion-, light-, and water-resistant water-thinned **inks** for **ink jet** recording with no nozzle clogging)
IT 25213-39-2P, Butyl methacrylate-styrene copolymer 213381-36-3P, Dimethyl 5-sodiosulfoisophthalate-dimethyl terephthalate-ethylene glycol-tricyclodecanedimethanol copolymer
(abrasion-, light-, and water-resistant water-thinned **inks** for **ink j t** recording with no nozzle clogging)

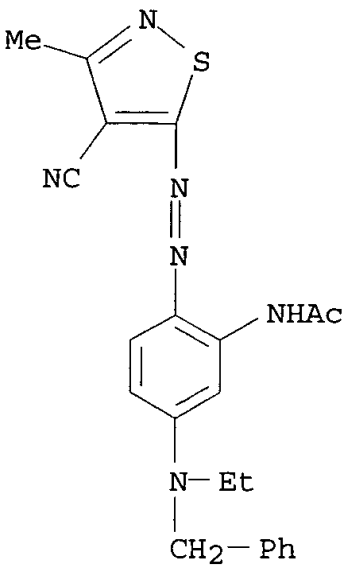
IT **4197-25-5**, C.I. Solvent Black 3 13418-49-0, C.I. Disperse Blue 87 65777-18-6, C.I. Disperse Yellow 162 72363-26-9, C.I. Disperse Red 92
(abrasion-, light-, and water-resistant water-thinned **inks** for **ink jet** recording with no nozzle clogging)

L44 ANSWER 7 OF 20 HCA COPYRIGHT 2003 ACS
128:76555 Heat transferring **inkjet** ink images. Bishop, John F.; Simons, Michael J.; Brick, Mary C. (Eastman Kodak Co., USA). U.S. US 5698018 A **19971216**, 6 pp. (English). CODEN: USXXAM. APPLICATION: US 1997-790131 19970129.

AB A method of transferring a pigmented image comprises providing a donor element bearing an **inkjet** printed image contg. .gtoreq.1 heat transferable pigment selected from the group consisting of 2-(N-methylcarbamyl)-4-(4-N,N-diethylaminophenylimino)-1,4-naphthoquinone (I), 2-(N-methylcarbamyl)-4-(4-N,N-diethylamino-2-methylphenylimino)-1,4-naphthoquinone, 1-phenyl-3-N,N-dimethylamino-4-(4-N,N-diethylaminobenzylidene)pyrazoline-5-one, N-ethyl-N-benzyl-3-acetamido-4-(3-methyl-4-cyanoisothiazol-5-ylazo)aniline, N-(2-((2,6-dicyano-4-methylphenyl)azo)-5-(diethylamino)phenyl)methanesulfonamide, N-(2-((2,6-dicyano-4-methylphenyl)azo)-5-(dipropylamino)phenyl)methanesulfonamide, contacting the donor element with an image receiving element, and transferring the heat transferable image to the image receiving element by applying heat to the donor element. Thus, an ink for printing a polyester-cotton white T shirt contained H2O, I, Luviskol K-30, a biocide, diethylene glycol, and **glycerin**.

IT **112940-69-9**
(heat transferring **inkjet** ink images contg. pigments on T-shirts)

RN 112940-69-9 HCA
CN Acetamide, N-[2-[(4-cyano-3-methyl-5-isothiazolyl)azo]-5-[ethyl(phenylmethyl)amino]phenyl]- (9CI) (CA INDEX NAME)



IC ICM C09D011-00
NCL 106031750
CC 40-6 (Textiles and Fibers)
Section cross-reference(s): 42
ST thermal transfer printing shirt; pigment **jet printing ink**
IT Textiles
(cotton-polyester; heat transferring **inkjet** ink images contg. pigments on T-shirts)
IT Pigments, nonbiological
(heat transferring **inkjet** ink images contg. pigments on T-shirts)
IT Thermal-transfer printing materials
(inks; heat transferring **inkjet** ink images contg. pigments on T-shirts)
IT **Inks**
(**jet-printing**; heat transferring **inkjet** ink images contg. pigments on T-shirts)
IT Inks
(printing, thermal-transfer; heat transferring **inkjet** ink images contg. pigments on T-shirts)
IT 4899-82-5 68385-96-6 72968-82-2 102187-53-1
112940-69-9 125888-49-5
(heat transferring **inkjet** ink images contg. pigments on T-shirts)

L44 ANSWER 8 OF 20 HCA COPYRIGHT 2003 ACS
127:36071 Water-thinned **ink-jet inks** containing dye-absorbed polymer suspensions giving bloating-free prints with good water resistance and fixation. Sakuma, Tadashi; Ueno, Tetsuya; Kawabe, Kuniyasu (Kao Corporation, Japan; Sakuma,

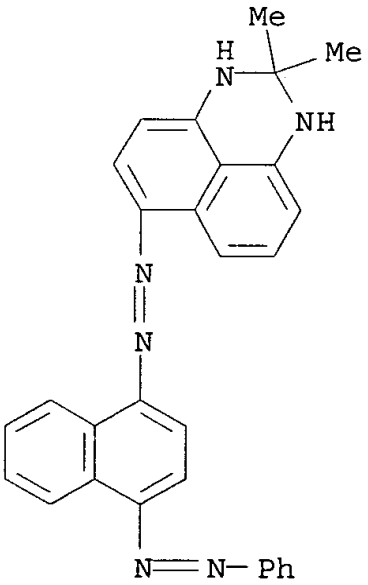
Tadashi; Ueno, Tetsuya; Kawabe, Kuniyasu). PCT Int. Appl. WO 9716495 A1 **19970509**, 40 pp. DESIGNATED STATES: W: US; RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (Japanese). CODEN: PIXXD2. APPLICATION: WO 1996-JP3128 19961025. PRIORITY: JP 1995-282204 19951030; JP 1996-266860 19961008.

AB Title inks comprise a suspension of a dye- or pigment-adsorbed polymer at .gamma..eta.d = 0.1-11 at 20.degree., (.gamma. = surface tension in dyne/cm; .eta. = viscosity in cP; d = mean particle diam. in .mu.m). Thus, a 20% water-thinned suspension [prepd. from polyoxypropylene(2,2)-2,2-bis(4-hydroxyphenyl)propane-maleic acid-hydroquinone copolymer mixed with Oil Black 860 and MEK, carboxy-ionized by dimethylethanolamine, and dispersed by Demol N] 85, ethanolamine 2, diethylene glycol 10, **glycerin** 2.5, and Acetylenol EL 0.5g were mixed and filtered to obtain an **ink-jet ink** with .gamma..eta.d 1.4.

IT **4197-25-5**, Orient Oil Black 860
(dye; water-thinned **ink-jet inks** contg. dye-absorbed polymer suspensions giving bloating-free prints with good water resistance and fixation)

RN 4197-25-5 HCA

CN 1H-Perimidine, 2,3-dihydro-2,2-dimethyl-6-[[4-(phenylazo)-1-naphthalenyl]azo]- (9CI) (CA INDEX NAME)



IC ICM C09D011-00

CC 42-12 (Coatings, Inks, and Related Products)

IT Polysiloxanes, uses
(KM 71, defoamer; water-thinned **ink-jet inks** contg. dye-absorbed polymer suspensions giving bloating-free prints with good water resistance and fixation)

IT Carbon black, uses
(dye; water-thinned **ink-jet inks**

contg. dye-absorbed polymer suspensions giving bloating-free prints with good water resistance and fixation)

IT **Inks**
(**jet-printing**, water-thinned; **ink-jet inks** contg. dye-absorbed polymer suspensions giving bloating-free prints with good water resistance and fixation)

IT Polyamides, uses
Polyesters, uses
(water-thinned **ink-jet inks** contg. dye-absorbed polymer suspensions giving bloating-free prints with good water resistance and fixation)

IT 51023-30-4, Demol N
(dispersant; water-thinned **ink-jet inks** contg. dye-absorbed polymer suspensions giving bloating-free prints with good water resistance and fixation)

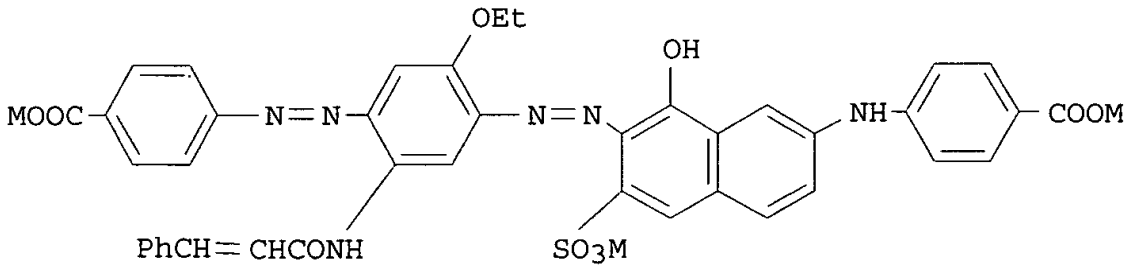
IT 509-34-2, Oil Pink 312 **4197-25-5**, Orient Oil Black 860 6483-64-3, Oil Scarlet 308 6706-82-7, Orient Oil Yellow 129 12237-24-0, Valifast Blue 2606 104244-10-2, Neopen Yellow 075
(dye; water-thinned **ink-jet inks** contg. dye-absorbed polymer suspensions giving bloating-free prints with good water resistance and fixation)

IT 65421-52-5 190733-03-0 190733-05-2 190733-07-4
(water-thinned **ink-jet inks** contg. dye-absorbed polymer suspensions giving bloating-free prints with good water resistance and fixation)

L44 ANSWER 9 OF 20 HCA COPYRIGHT 2003 ACS

126:213486 Recording liquids containing azo dyes suitable for **ink-jet** recording. Sano, Hideo; Takimoto, Hiroshi; Nishimura, Toru; Yamada, Masahiro; Hirasa, Takashi (Mitsubishi Chemical Corporation, Japan). Eur. Pat. Appl. EP 757087 A2 **19970205**, 48 pp. DESIGNATED STATES: R: DE, GB. (English). CODEN: EPXXDW. APPLICATION: EP 1996-305103 19960711. PRIORITY: JP 1995-178447 19950714; JP 1995-299450 19951117; JP 1995-302523 19951121; JP 1995-331825 19951220.

GI



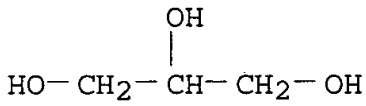
I

AB A recording liq. comprises an aq. medium and .gtoreq.1 azo dye of a particular formula, and can form recorded images when used in an **ink-jet** recording method with high printing quality, high d., good color tone and good water and light resistance. The compn. has good storage stability. An ink contained water, diethylene glycol, iso-Pr alc., and I (M = NH4).

IT **56-81-5**, 1,2,3-Propanetriol, uses
(recording liqs. contg. azo dyes suitable for **ink-jet** recording)

RN 56-81-5 HCA

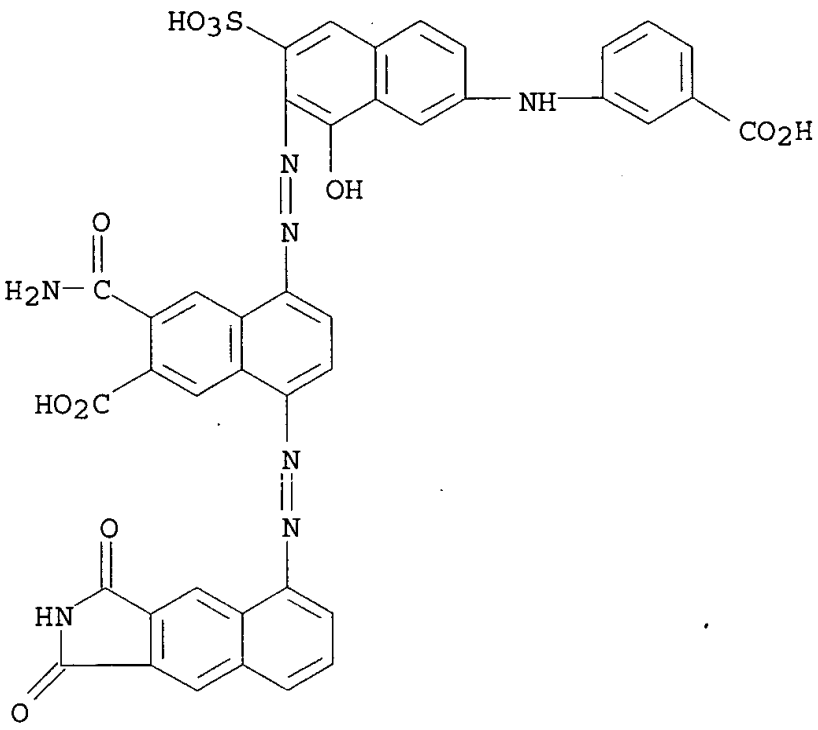
CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



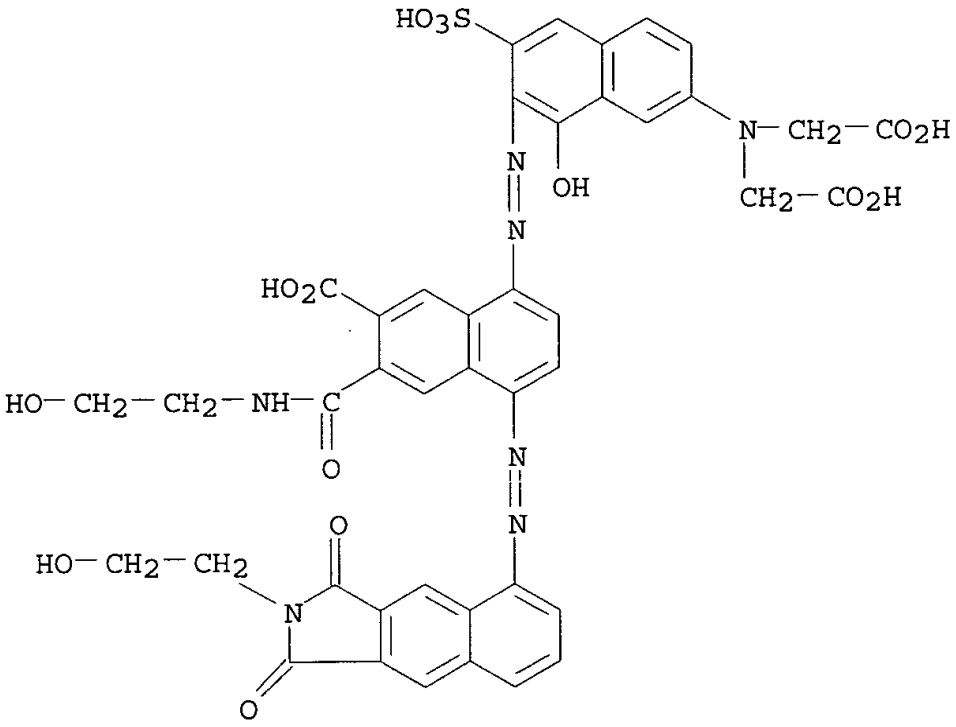
IT **188036-07-9 188036-08-0 188036-15-9 188036-16-0**
(recording liqs. contg. azo dyes suitable for **ink-jet** recording)

RN 188036-07-9 HCA

CN 2-Naphthalenecarboxylic acid, 3-(aminocarbonyl)-5-[[7-[(3-carboxyphenyl)amino]-1-hydroxy-3-sulfo-2-naphthalenyl]azo]-8-[(2,3-dihydro-1,3-dioxo-1H-benz[f]isoindol-5-yl)azo]- (9CI) (CA INDEX NAME)

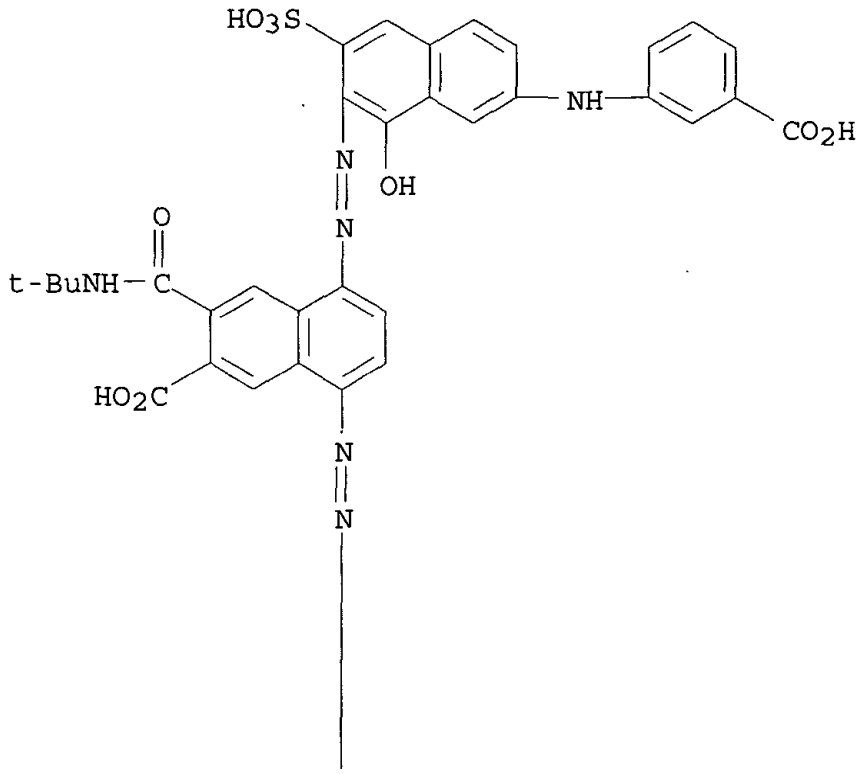


RN 188036-08-0 HCA
CN 2-Naphthalenecarboxylic acid, 8-[[7-[bis(carboxymethyl)amino]-1-hydroxy-3-sulfo-2-naphthalenyl]azo]-5-[[2,3-dihydro-2-(2-hydroxyethyl)-1,3-dioxo-1H-benz[f]isoindol-5-yl]azo]-3-[[(2-hydroxyethyl)amino]carbonyl]- (9CI) (CA INDEX NAME)

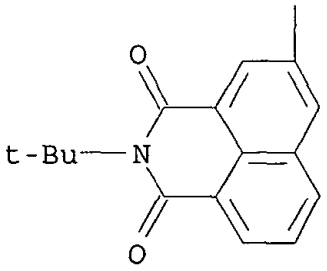


RN 188036-15-9 HCA
CN 2-Naphthalenecarboxylic acid, 5-[[7-[(3-carboxyphenyl)amino]-1-hydroxy-3-sulfo-2-naphthalenyl]azo]-3-[[(1,1-dimethylethyl)amino]carbonyl]-8-[[2-(1,1-dimethylethyl)-2,3-dihydro-1,3-dioxo-1H-benz[de]isoquinolin-5-yl]azo]- (9CI) (CA INDEX NAME)

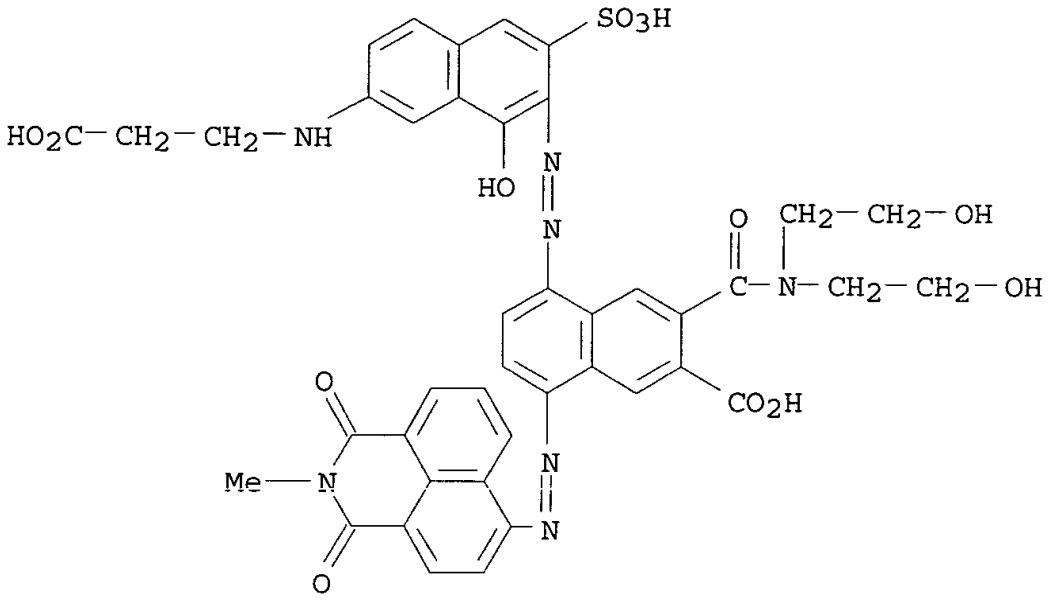
PAGE 1-A



PAGE 2-A



RN 188036-16-0 HCA
CN 2-Naphthalenecarboxylic acid, 3-[[bis(2-hydroxyethyl)amino]carbonyl]-5-[[7-[(2-carboxyethyl)amino]-1-hydroxy-3-sulfo-2-naphthalenyl]azo]-8-[(2,3-dihydro-2-methyl-1,3-dioxo-1H-benz[de]isoquinolin-6-yl)azo]- (9CI) (CA INDEX NAME)



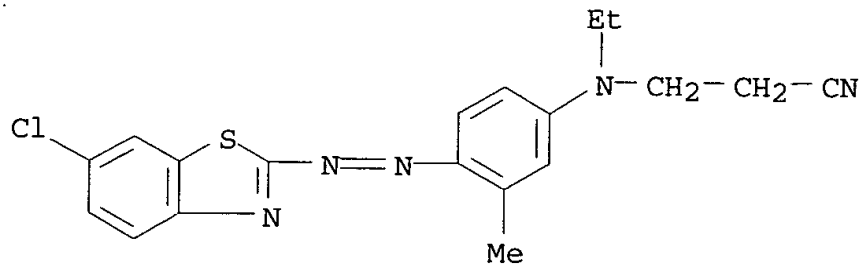
IC ICM C09D011-00
ICS B41J002-01
CC 42-12 (Coatings, Inks, and Related Products)
ST **ink jet** recording compn; azo dye aq **jet ink**
IT **Inks**
(**jet-printing**; recording liqs. contg. azo dyes suitable for **ink-jet** recording)
IT Azo dyes
(recording liqs. contg. azo dyes suitable for **ink-jet** recording)
IT Polyoxyalkylenes, uses
(recording liqs. contg. azo dyes suitable for **ink-jet** recording)
IT **56-81-5**, 1,2,3-Propanetriol, uses 57-55-6, 1,2-Propanediol, uses 64-17-5, Ethanol, uses 67-63-0, Isopropyl alcohol, uses 67-68-5, uses 80-73-9 102-71-6, uses 107-21-1, 1,2-Ethanediol, uses 109-86-4, Ethylene glycol monomethyl ether 111-45-5 111-46-6, uses 111-48-8 111-77-3, Diethylene glycol monomethyl ether 112-27-6 126-33-0, Sulfolane 616-45-5, 2-Pyrrolidone 872-50-4, NMP, uses 2687-91-4, N-Ethylpyrrolidone 7732-18-5, Water, uses 25265-75-2, Butylene glycol 25322-68-3
(recording liqs. contg. azo dyes suitable for **ink-jet** recording)
IT 188035-52-1 188035-53-2 188035-54-3 188035-55-4 188035-57-6
188035-58-7 188035-59-8 188035-61-2 188035-62-3 188035-63-4
188035-64-5 188035-65-6 188035-66-7 188035-67-8 188035-69-0
188035-70-3 188035-71-4 188035-72-5 188035-74-7 188035-75-8
188035-76-9 188035-77-0 188035-78-1 188035-80-5 188035-81-6
188035-82-7 188035-83-8 188035-84-9 188035-85-0 188035-86-1

188035-87-2 188035-88-3 188035-89-4 188035-90-7 188035-91-8
188035-92-9 188035-93-0 188035-94-1 188035-95-2 188035-96-3
188035-97-4 188035-98-5 188035-99-6 188036-00-2 188036-01-3
188036-02-4 188036-03-5 188036-04-6 188036-05-7 188036-06-8
188036-07-9 188036-08-0 188036-09-1
188036-10-4 188036-11-5 188036-12-6 188036-13-7 188036-14-8
188036-15-9 188036-16-0 188036-17-1
188036-18-2 188036-19-3 188036-20-6 188036-21-7 188036-22-8
188036-23-9 188036-24-0 188036-25-1 188036-26-2 188036-27-3
188036-28-4 188036-29-5 188036-30-8 188036-31-9 188036-32-0
188036-33-1 188036-34-2 188036-35-3 188036-36-4 188036-37-5
188036-38-6 188036-39-7 188036-40-0 188036-41-1 188036-42-2
188036-43-3 188036-44-4 188036-45-5 188036-46-6 188036-47-7
188036-48-8 188036-49-9 188036-50-2 188036-51-3 188036-52-4
(recording liqs. contg. azo dyes suitable for **ink-jet** recording)

L44 ANSWER 10 OF 20 HCA COPYRIGHT 2003 ACS
125:171179 Aqueous bubble-**jet inks**, **ink-jet printing** method, and printing apparatus.
Noguchi, Hiromichi; Takaide, Fumi; Shirota, Kinu; Koike, Shoji; Haruta, Masahiro; Yamamoto, Tomoya; Suzuki, Mariko (Canon Kk, Japan). Jpn. Kokai Tokkyo Koho JP 08143803 A2 **19960604** Heisei, 16 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1994-307134 19941117.

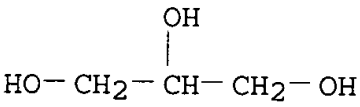
AB Aq. dispersion **inks** for bubble-**jet printing** comprise (1) water, (2) water-sol. org. solvents, (3) pigments or pigment dispersions comprising dispersible pigments and anionic leaving group-contg. polymer dispersants, and (4) surfactants which have HLB .gtoreq.14 and are ethylene oxide adducts with fatty acid amines or fatty acid amides. 40 Parts of an aq. polymer soln. contg. 20 wt.% styrene-methacrylic acid-Et acrylate copolymer with acid value 400 and wt.-av. mol. wt. 6000 and KOH as neutralizing agent was mixed with carbon black 24, **glycerin** 15, ethylene glycol monobutyl ether 0.5, iso-Pr alc. 3, and water 117.5 parts to give a black dispersion, 32 parts of which was dild. with 68 parts water and mixed with 0.3 part of N,N-di(polyoxyethylene)hexadecylamine with av. of 8 oxyethylene units in each of the polyether chain and having HLB 15.1 to provide a black ink. **Ink-jet printing** method using such inks and printing app. are also claimed.

IT **78564-86-0**, C.I. Disperse Red 152
(aq. bubble-**jet inks** for **ink-jet printing**)
RN 78564-86-0 HCA
CN Propanenitrile, 3-[[4-[[5,6(or 6,7)-dichloro-2-benzothiazolyl]azo]-3-methylphenyl]ethylamino]- (9CI) (CA INDEX NAME)



D1—Cl

IT **56-81-5**, 1,2,3-Propanetriol, uses
(aq. bubble-**jet inks** for **ink-jet printing**)
RN 56-81-5 HCA
CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



IC ICM C09D011-00
ICS B41J002-01; B41M005-00
CC 42-12 (Coatings, Inks, and Related Products)
ST **ink** aq bubble **jet printing**; ethylene oxide adduct fatty amine surfactant
IT Carbon black, uses
(aq. bubble-**jet inks** for **ink-jet printing**)
IT **Printing**, nonimpact
(**ink-jet**, aq. bubble-**jet inks** for **ink-jet printing**)
IT **Printing** apparatus
(**ink-jet**, aq. bubble-**jet inks** for **ink-jet printing** and **printing** app.)
IT **Inks**
(**jet-printing**, aq. bubble-**jet inks** for **ink-jet printing**)
IT 147-14-8, Fastogen Blue FGF 980-26-7, Pigment Red 122 1328-53-6, C.I. Pigment Green 7 4051-63-2, C.I. Pigment Red 177 5045-40-9, C.I. Pigment Yellow 109 6358-31-2, Pigment Yellow 74 12217-80-0, C.I. Disperse Blue 60 17741-63-8, C.I. Pigment Violet 37 77804-81-0, Pigment Yellow 180 **78564-86-0**, C.I. Disperse Red 152 88651-03-0, C.I. Disperse Yellow 224
(aq. bubble-**jet inks** for **ink-jet printing**)

IT 25035-68-1, Ethyl acrylate-methacrylic acid-styrene copolymer
25585-77-7, Acrylic acid-ethyl acrylate-styrene copolymer
25586-20-3, Acrylic acid-butyl acrylate-styrene copolymer
25767-39-9, Acrylic acid-methyl methacrylate-styrene copolymer
85884-66-8
(aq. bubble-**jet inks** for **ink-jet printing**)

IT **56-81-5**, 1,2,3-Propanetriol, uses 64-17-5, Ethanol, uses
67-63-0, 2-Propanol, uses 97-99-4, Tetrahydrofurfuryl alcohol
107-21-1, 1,2-Ethanediol, uses 107-41-5, Hexylene glycol
111-46-6, uses 111-76-2, Ethylene glycol monobutyl ether
112-27-6 112-34-5, Diethylene glycol monobutyl ether 143-22-6,
Triethyleneglycol monobutyl ether 513-85-9, 2,3-Butanediol
3068-00-6, 1,2,4-Butanetriol
(aq. bubble-**jet inks** for **ink-jet printing**)

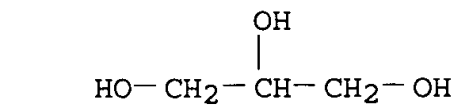
IT 26635-92-7 26635-94-9 31017-83-1 34410-18-9 180634-06-4
(surfactant; aq. bubble-**jet inks** for **ink-jet printing**)

L44 ANSWER 11 OF 20 HCA COPYRIGHT 2003 ACS
124:148957 Water- and feathering-resistant **jet printing inks**, their manufacture, and image formation process. Oota, Hitoshi (Seiko Epson Corp, Japan). Jpn. Kokai Tokkyo Koho JP 07305012 A2 **19951121** Heisei, 11 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1994-98865 19940512.

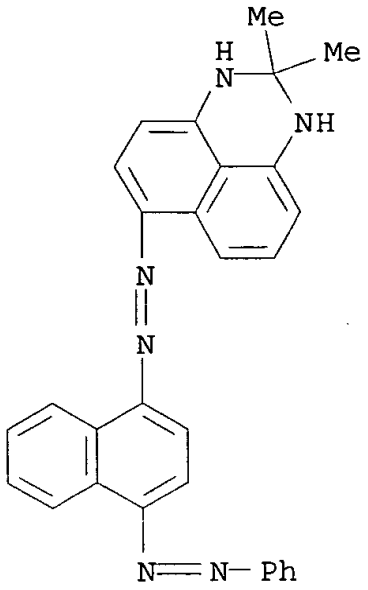
AB The title inks are based on oil-sol. metal complex dyes, H2O, and H2O-sol. org. solvents and contain 0.01-20% (based on the dyes) .gtoreq.1 inorg. salts comprising alkali metals, alk. earth metals, or multivalent metals. In the manufg. process comprising (1) prepg. solns. of the dyes in org. solvents and (2) blending the resulting solns. with aq. solns., the inorg. salts are added in either process. Thus, 5.0 g Aizen Spilon Black RLH was dissolved in 10.0 g N-methyl-2-pyrrolidone to give a soln. which was added to an aq. soln. of 0.05 g NaCl to give an ink, which gave a clear image with no feathering and good H2O resistance.

IT **56-81-5**, **Glycerol**, uses **4197-25-5**, Orient Oil Black HBB
(**jet printing inks** for image formation with good feathering and water resistance)

RN 56-81-5 HCA
CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



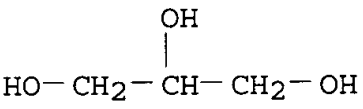
RN 4197-25-5 HCA
CN 1H-Perimidine, 2,3-dihydro-2,2-dimethyl-6-[[4-(phenylazo)-1-naphthalenyl]azo]- (9CI) (CA INDEX NAME)



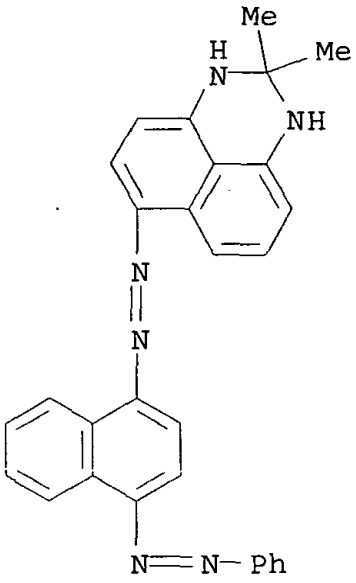
IC ICM C09D011-00
ICS B41J002-01; B41M005-00
CC 42-12 (Coatings, Inks, and Related Products)
ST **jet printing ink** feathering resistance; water resistance **ink jet printing**
IT **Inks**
(**jet-printing, jet printing inks** for image formation with good feathering and water resistance)
IT 7447-39-4, Copper(II) chloride, uses 7447-41-8, Lithium chloride, uses 7646-85-7, Zinc chloride, uses 7647-14-5, Sodium chloride, uses 7778-18-9, Calcium sulfate 7787-47-5, Beryllium chloride 7790-69-4, Lithium nitrate 10028-22-5, Iron(III) sulfate 10043-01-3, Aluminum sulfate 10377-60-3, Magnesium nitrate 10377-66-9, Manganese nitrate 13462-88-9, Nickel bromide 13765-19-0, Calcium chromate 35112-53-9, Barium thiosulfate
(**jet printing inks** for image formation with good feathering and water resistance)
IT **56-81-5, Glycerol**, uses 64-17-5, Ethanol, uses 67-68-5, Dimethyl sulfoxide, uses 96-48-0, .gamma.-Butyrolactone 98-00-0, Furfuryl alcohol 107-21-1, Ethylene glycol, uses 107-41-5, 2-Methyl-2,4-pentanediol 111-46-6, Diethylene glycol, uses 616-45-5, 2-Pyrrolidone **4197-25-5**, Orient Oil Black HBB 10343-55-2, Vali Fast Yellow 3104 11099-03-9, Orient Spirit Black AB 12226-78-7, Orasol Blue GN 12237-23-9, Orasol Black CN 39290-76-1, Aizen Spilon Red GEH 85568-35-0, Aizen Spilon Black RLH
(**jet printing inks** for image formation with good feathering and water resistance)
IT 872-50-4, N-Methyl-2-pyrrolidone, uses
(**jet printing inks** for image

formation with good feathering and water resistance)

L44 ANSWER 12 OF 20 HCA COPYRIGHT 2003 ACS
124:11162 Aqueous **jet-printing inks**.
Itoh, Hiroshi (Seiko Epson Corp., Japan). PCT Int. Appl. WO 9521897 A1 **19950817**, 50 pp. DESIGNATED STATES: W: JP, US; RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (Japanese). CODEN: PIXXD2. APPLICATION: WO 1995-JP206 19950214. PRIORITY: JP 1994-17570 19940214; JP 1994-171297 19940722.
AB Title inks, having fast dryability and water resistance, contain water-insol. pigment and water-sol. org. solvents without the dispersants. The stable ink compns. can be obtained without requiring a step of dispersing the pigments by a ball mill or the like. Mixing and heating Oleosol black AR 5, N-methyl-2-pyrrolidone 10, and thiodiglycol 5 g, dilg. with 80 g water, and filtering gave an ink with dispersing stability at 60.degree. for 1 mo.
IT **56-81-5**, 1,2,3-Propanetriol, uses
(solvent; water-insol. pigment- and water-sol. org. solvent-contg. aq. inks with dispersion stability and water resistance)
RN 56-81-5 HCA
CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)

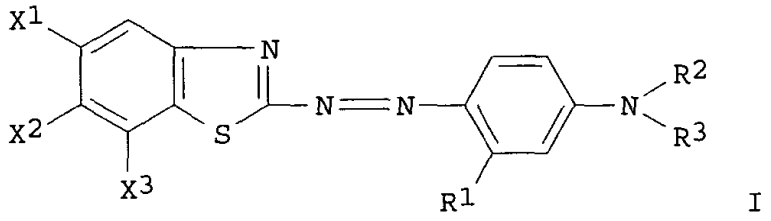


IT **4197-25-5**, Aizen sot black 6
(water-insol. pigment- and water-sol. org. solvent-contg. aq. inks with dispersion stability and water resistance)
RN 4197-25-5 HCA
CN 1H-Perimidine, 2,3-dihydro-2,2-dimethyl-6-[[4-(phenylazo)-1-naphthalenyl]azo]- (9CI) (CA INDEX NAME)



IC ICM C09D011-00
CC 42-12 (Coatings, Inks, and Related Products)
ST **jet printing ink** water insol pigment
IT **Inks**
(**jet-printing**, water-insol. pigment- and water-sol. org. solvent-contg. aq. inks with dispersion stability and water resistance)
IT **56-81-5**, 1,2,3-Propanetriol, uses 96-48-0, .gamma.-Butyrolactone 107-21-1, 1,2-Ethanediol, uses 111-48-8, Thiodiglycol 616-45-5, 2-Pyrrolidone 872-50-4, N-Methyl-2-pyrrolidone, uses
(solvent; water-insol. pigment- and water-sol. org. solvent-contg. aq. inks with dispersion stability and water resistance)
IT 128-85-8, Oleosol blue G 509-34-2, Aizen sot pink 1 1328-54-7, Aizen sot blue 1 2379-74-0 4118-16-5 **4197-25-5**, Aizen sot black 6 17418-58-5, Kayaset red B 61968-60-3, C.I. Disperse Violet 57 104270-04-4, Aizen sot yellow 5 158163-96-3, Oleosol brilliant yellow 5G 171402-34-9, Oleosol Black AR
(water-insol. pigment- and water-sol. org. solvent-contg. aq. inks with dispersion stability and water resistance)

L44 ANSWER 13 OF 20 HCA COPYRIGHT 2003 ACS
122:136374 Azo dye-containing **jet-printing** **inks** for hydrophobic fibers. Murakami, Yasuo; Izumi, Kaoru; Kubo, Motosada (Nippon Kayaku Kk, Japan). Jpn. Kokai Tokkyo Koho JP 06184480 A2 **19940705** Heisei, 5 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1992-353921 19921216.
GI



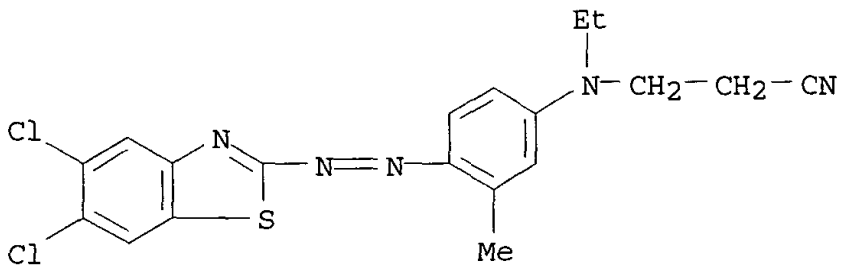
I

AB The title inks contain .gtoreq.1 dispersed azo dye I (X1, X3 = Cl, H; X2 = Cl; X1, X3 .noteq. Cl at the same time; R1 = H, Cl, C1-4 alkyl, C1-2 acylamino; R2-3 = alkyl, alkoxycarbonylalkyl, alkoxycarbonyloxyalkyl, alkylcarbonyloxyalkyl, phenylcarbonyloxyalkyl, cyanoalkyl, phenylalkyl, or phenoxyalkyl with all alkoxy and alkyl having 1-4 C). A mixt. of I (X1-2 = Cl; X3 = H; R1 = Me; R2 = CH2CH2CN; R3 = Et) 9, I (X1 = H; X2-3 = Cl; R1 = Me; R2 = CH2CH2CN; R3 = Et) 9, HCHO-Na naphthalenesulfonate condensate 6.5, ethylene oxide-propylene oxide block copolymer 4.3, and water 45 parts was wet milled and filtered to give a dispersion which (60 parts) was mixed with 10.6 parts **glycerol** and 75.4 parts water and filtered to give an ink contg. 10% solids.

IT **28080-90-2**
(dye; in **jet-printing inks** for hydrophobic fibers)

RN 28080-90-2 HCA

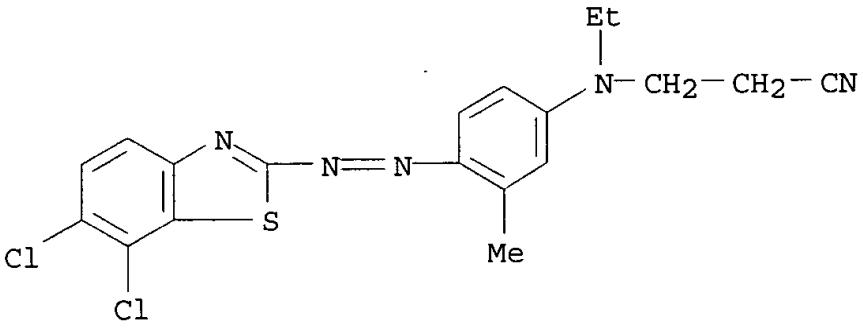
CN Propanenitrile, 3-[[4-[(5,6-dichloro-2-benzothiazolyl)azo]-3-methylphenyl]ethylamino]- (9CI) (CA INDEX NAME)



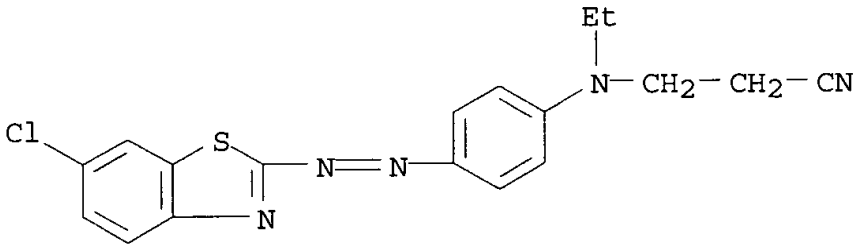
IT **78520-83-9 78564-87-1 89456-51-9**
111381-10-3 111381-11-4 111381-12-5
143145-93-1 160987-56-4 160987-57-5
160987-58-6 160987-59-7 160987-60-0
161015-57-2 161025-10-1 161105-79-9
(in **jet-printing inks** for hydrophobic fibers)

RN 78520-83-9 HCA

CN Propanenitrile, 3-[[4-[(6,7-dichloro-2-benzothiazolyl)azo]-3-methylphenyl]ethylamino]- (9CI) (CA INDEX NAME)

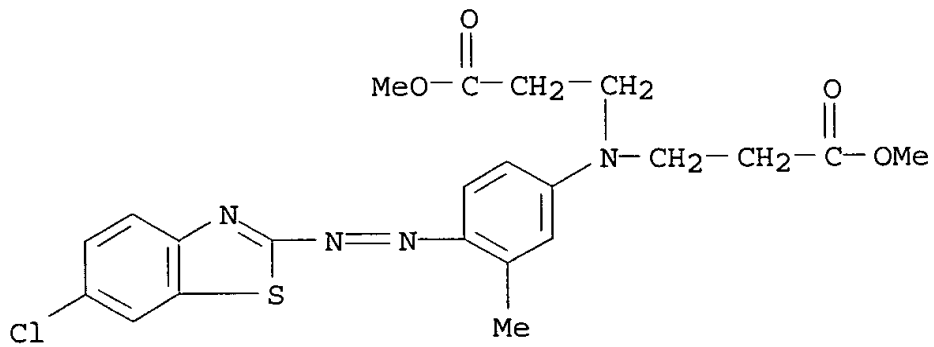


RN 78564-87-1 HCA
CN Propanenitrile, 3-[[4-[[5,6(or 6,7)-dichloro-2-benzothiazolyl]azo]phenyl]ethylamino]- (9CI) (CA INDEX NAME)



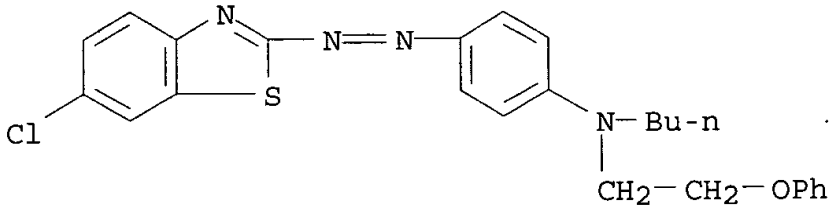
D1—Cl

RN 89456-51-9 HCA
CN .beta.-Alanine, N-[4-[[5,6(or 6,7)-dichloro-2-benzothiazolyl]azo]-3-methylphenyl]-N-(3-methoxy-3-oxopropyl)-, methyl ester (9CI) (CA INDEX NAME)



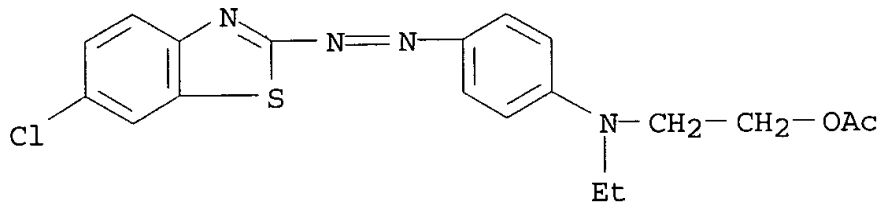
D1—Cl

RN 111381-10-3 HCA
CN Benzenamine, N-butyl-4-[[5,6(or 6,7)-dichloro-2-benzothiazolyl]azo]-N-(2-phenoxyethyl)- (9CI) (CA INDEX NAME)



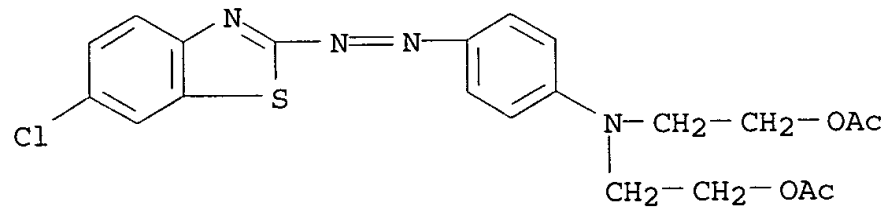
D1—Cl

RN 111381-11-4 HCA
CN Ethanol, 2-[[4-[[5,6(or 6,7)-dichloro-2-benzothiazolyl]azo]phenyl]ethylamino]-, acetate (ester) (9CI) (CA INDEX NAME)



D1—Cl

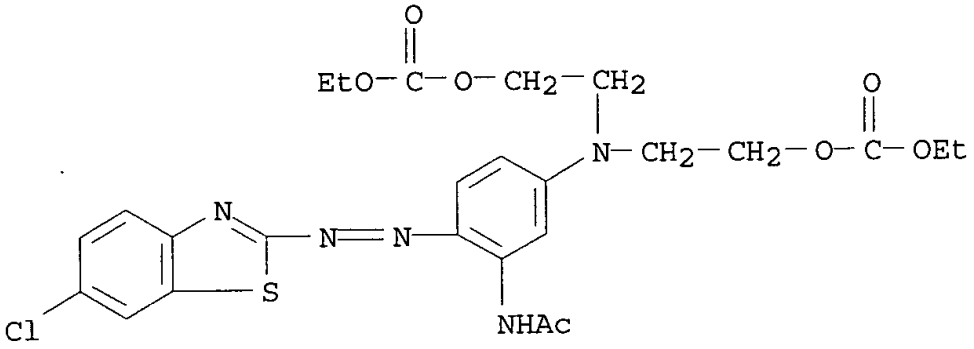
RN 111381-12-5 HCA
CN Ethanol, 2,2'-[[4-[[5,6(or 6,7)-dichloro-2-benzothiazolyl]azo]phenyl]imino]bis-, diacetate (ester) (9CI) (CA INDEX NAME)



D1—Cl

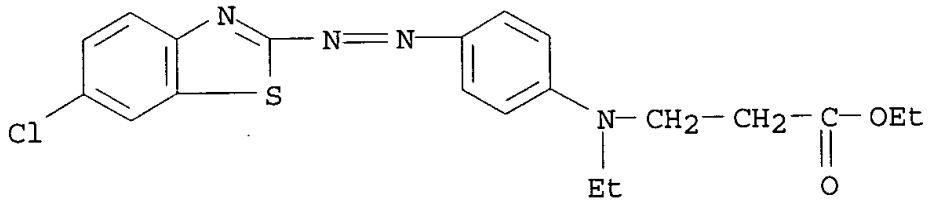
RN 143145-93-1 HCA

CN 2,8,10-Trioxa-5-azadodecanoic acid, 5-[3-(acetylamino)-4-[[5,6(or 6,7)-dichloro-2-benzothiazolyl]azo]phenyl]-, ethyl ester (9CI) (CA INDEX NAME)



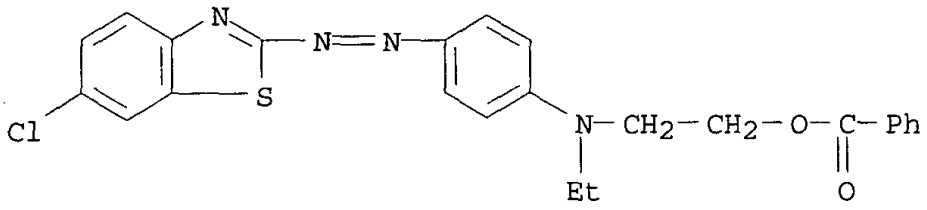
D1—Cl

RN 160987-56-4 HCA
CN .beta.-Alanine, N-[4-[[5,6(or 6,7)-dichloro-2-benzothiazolyl]azo]phenyl]-N-ethyl-, ethyl ester (9CI) (CA INDEX NAME)



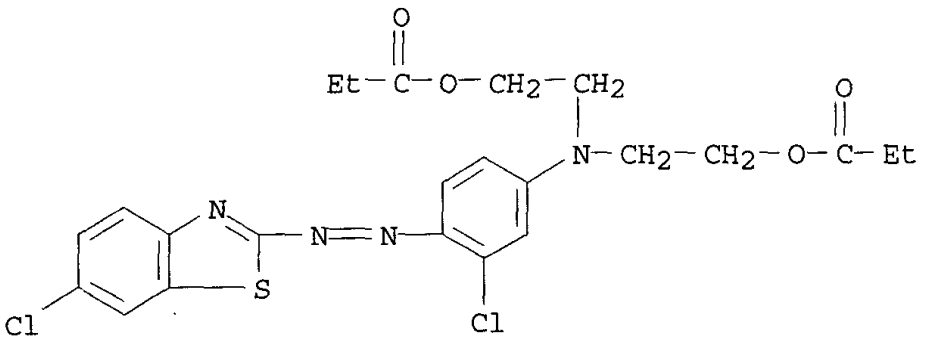
D1—Cl

RN 160987-57-5 HCA
CN Ethanol, 2-[[4-[[5,6(or 6,7)-dichloro-2-benzothiazolyl]azo]phenyl]ethylamino]-, benzoate (ester) (9CI) (CA INDEX NAME)



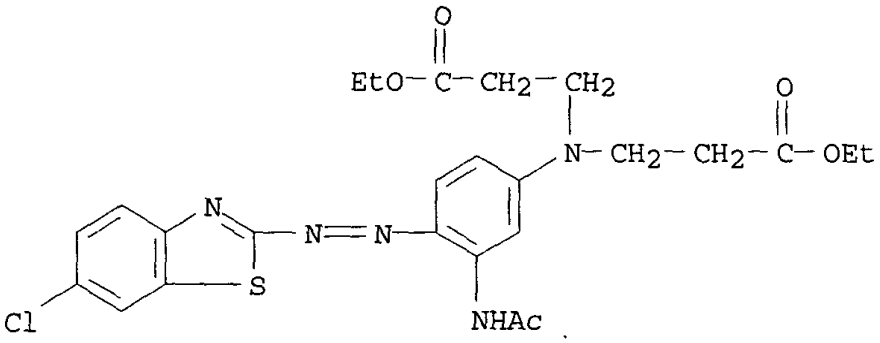
D1—Cl

RN 160987-58-6 HCA
CN Ethanol, 2,2'-[[3-chloro-4-[[5,6(or 6,7)-dichloro-2-benzothiazolyl]azo]phenyl]imino]bis-, dipropanoate (ester) (9CI) (CA INDEX NAME)



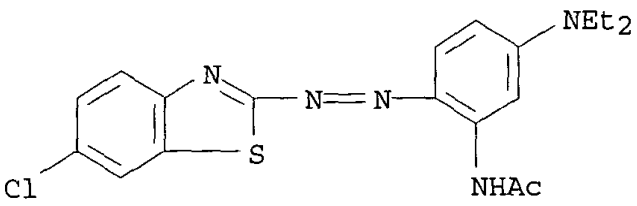
D1—Cl

RN 160987-59-7 HCA
CN .beta.-Alanine, N-[3-(acetylamino)-4-[[5,6(or 6,7)-dichloro-2-benzothiazolyl]azo]phenyl]-N-(3-ethoxy-3-oxopropyl)-, ethyl ester (9CI) (CA INDEX NAME)



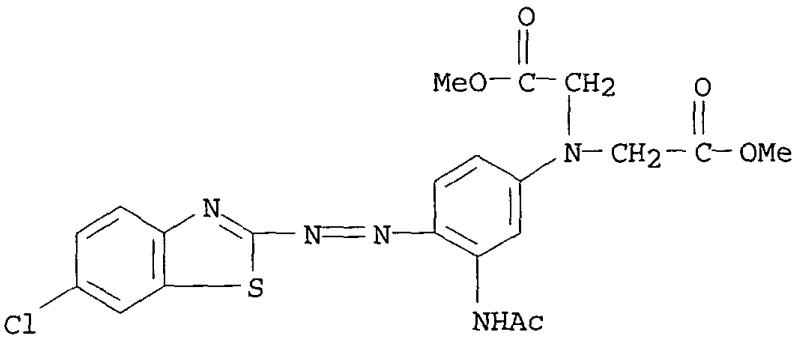
D1—Cl

RN 160987-60-0 HCA
CN Acetamide, N-[2-[[5,6(or 6,7)-dichloro-2-benzothiazolyl]azo]-5-(diethylamino)phenyl]- (9CI) (CA INDEX NAME)



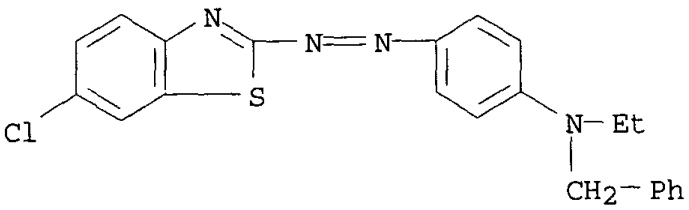
D1—Cl

RN 161015-57-2 HCA
CN Glycine, N-[3-(acetylamino)-4-[[5,6(or 6,7)-dichloro-2-benzothiazolyl]azo]phenyl]-N-(2-methoxy-2-oxoethyl)-, methyl ester (9CI) (CA INDEX NAME)



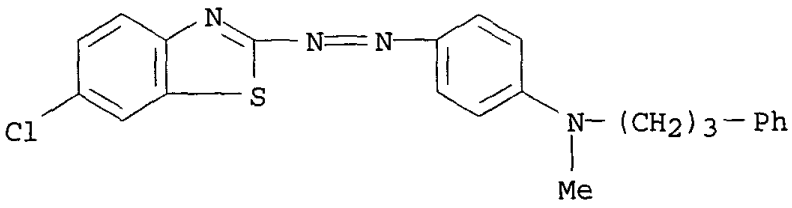
D1—Cl

RN 161025-10-1 HCA
CN Benzenemethanamine, N-[4-[[5,6(or 6,7)-dichloro-2-benzothiazolyl]azo]phenyl]-N-ethyl- (9CI) (CA INDEX NAME)



D1—Cl

RN 161105-79-9 HCA
CN Benzenepropanamine, N-[4-[[5,6(or 6,7)-dichloro-2-benzothiazolyl]azo]phenyl]-N-methyl- (9CI) (CA INDEX NAME)

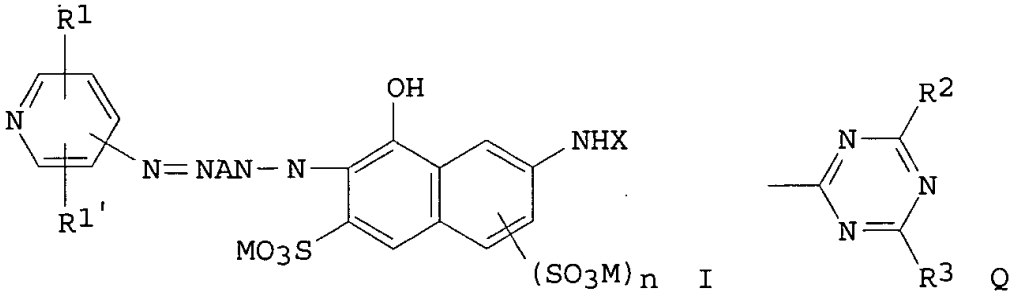


D1—Cl

IC ICM C09D011-00
ICS C09B067-46; D06P005-00

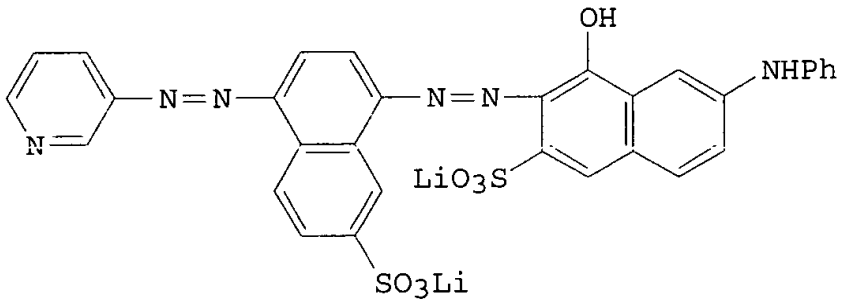
CC 42-12 (Coatings, Inks, and Related Products)
Section cross-reference(s): 40
ST **j t printing ink** azo dye; fiber hydrophobic **jet printing ink**; dyeing hydrophobic fiber azo dye
IT Dyes, azo
(in **jet-printing inks** for hydrophobic fibers)
IT **Inks**
(**jet-printing**, azo dye-contg. inks for use on hydrophobic fibers)
IT **28080-90-2**
(dye; in **jet-printing inks** for hydrophobic fibers)
IT **78520-83-9 78564-87-1 89456-51-9 111381-10-3 111381-11-4 111381-12-5 143145-93-1 160987-56-4 160987-57-5 160987-58-6 160987-59-7 160987-60-0 161015-57-2 161025-10-1 161105-79-9**
(in **jet-printing inks** for hydrophobic fibers)

L44 ANSWER 14 OF 20 HCA COPYRIGHT 2003 ACS
122:108906 Storage-stable aqueous black **inks** for **jet printing**. Sano, Hideo; Murata, Jukichi; Yoneyama, Tomio (Mitsubishi Chem Ind, Japan). Jpn. Kokai Tokkyo Koho JP 06192603 A2 **19940712** Heisei, 10 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1992-344708 19921224.
GI



I

Q



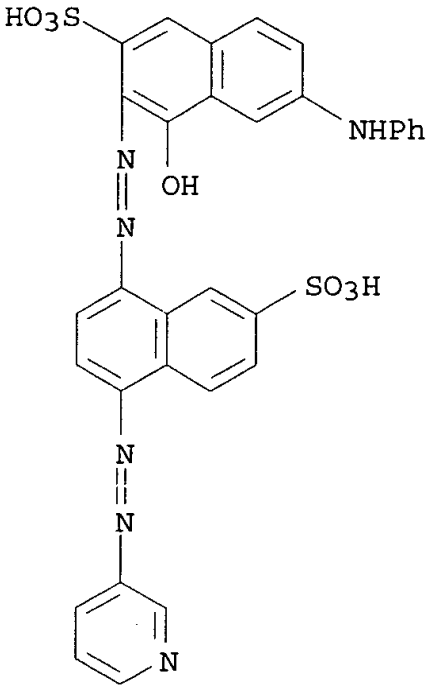
II

AB The title inks, giving light- and water-resistant images, contain disazo dyes I [A = (substituted) phenylene, (substituted) naphthylene; R1, R1' = H, alkyl, nitro, amino, halo, acylamino; X = H, alkyl, acyl, (MO3S- or MO2C-substituted) Ph, MO2C-substituted alkyl, hydroxyalkyl, Q; M = alkali metal, NH4, org. amine; n = 0-1; R2-3 = Cl, OH, amino, (substituted) lower alkylamino, arylamino, morpholino]. An aq. ink contg. II 2.5, diethylene glycol 20, N-methylpyrrolidone 5, triethanolamine 3, and Me2CHOH 3% showed good storage stability at 5.degree. and 60.degree..

IT **160312-79-8 160312-80-1 160312-81-2**
160312-82-3 160312-83-4 160312-84-5
160312-85-6 160312-86-7 160312-87-8
160312-88-9 160312-90-3 160312-91-4
160312-92-5 160312-93-6 160312-94-7
160312-95-8
(dyes; in aq. **jet-printing inks** with storage stability)

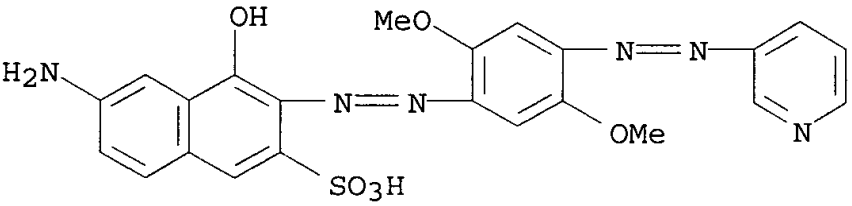
RN 160312-79-8 HCA

CN 2-Naphthalenesulfonic acid, 4-hydroxy-6-(phenylamino)-3-[[4-(3-pyridinylazo)-7-sulfo-1-naphthalenyl]azo]-, dilithium salt (9CI) (CA INDEX NAME)



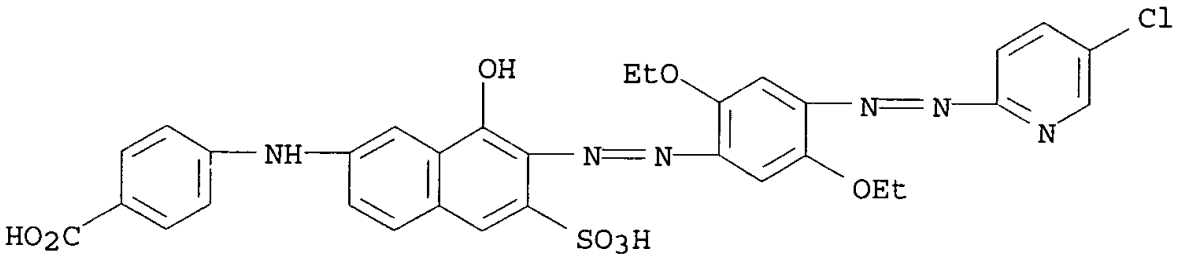
● 2 Li

RN 160312-80-1 HCA
CN 2-Naphthalenesulfonic acid, 6-amino-3-[[2,5-dimethoxy-4-(3-pyridinylazo)phenyl]azo]-4-hydroxy-, monolithium salt (9CI) (CA INDEX NAME)



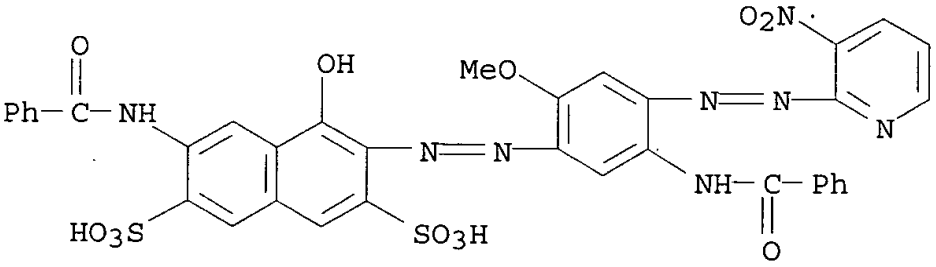
● Li

RN 160312-81-2 HCA
CN Benzoic acid, 4-[[7-[[4-[(5-chloro-2-pyridinyl)azo]-2,5-diethoxyphenyl]azo]-8-hydroxy-6-sulfo-2-naphthalenyl]amino]-, diammonium salt (9CI) (CA INDEX NAME)



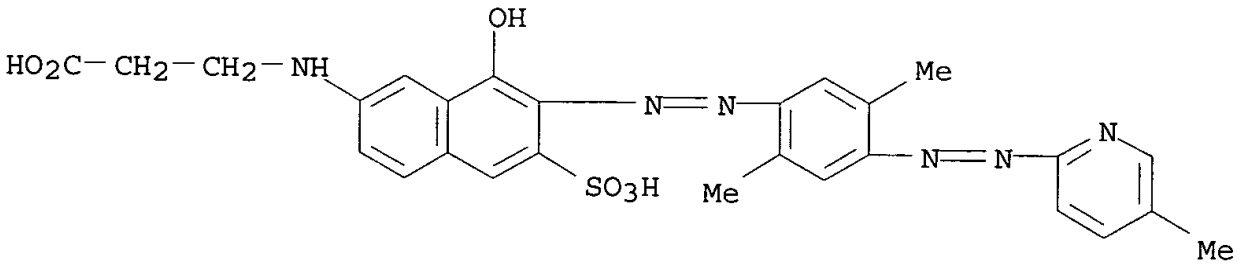
● 2 NH_3

RN 160312-82-3 HCA
CN 2,7-Naphthalenedisulfonic acid, 6-(benzoylamino)-3-[[5-(benzoylamino)-2-methoxy-4-[(3-nitro-2-pyridinyl)azo]phenyl]azo]-4-hydroxy-, disodium salt (9CI) (CA INDEX NAME)



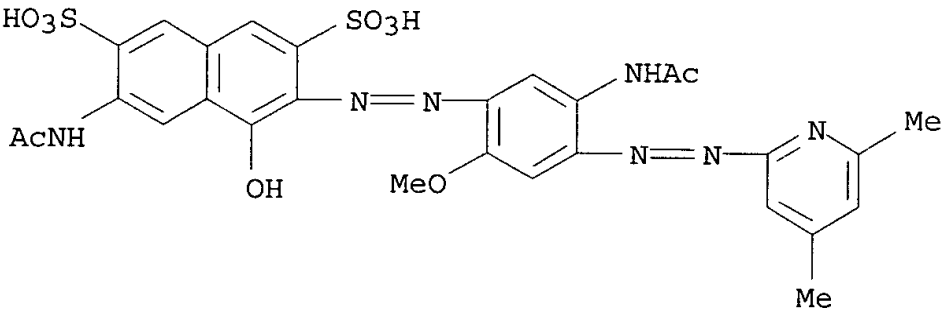
● 2 Na

RN 160312-83-4 HCA
CN .beta.-Alanine, N-[7-[[2,5-dimethyl-4-[(5-methyl-2-pyridinyl)azo]phenyl]azo]-8-hydroxy-6-sulfo-2-naphthalenyl]-, diammonium salt (9CI) (CA INDEX NAME)



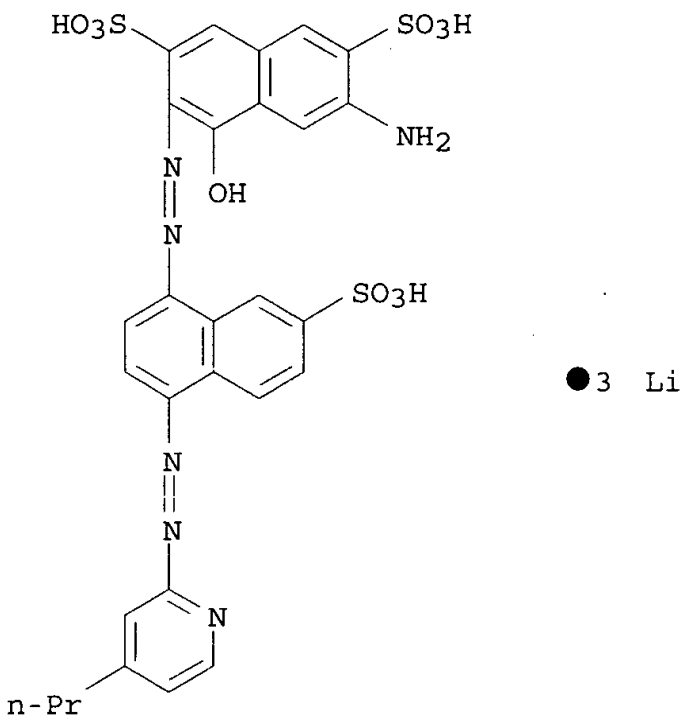
● 2 NH_3

RN 160312-84-5 HCA
CN 2,7-Naphthalenedisulfonic acid, 6-(acetylamino)-3-[[5-(acetylamino)-4-[(4,6-dimethyl-2-pyridinyl)azo]-2-methoxyphenyl]azo]-4-hydroxy-, dilithium salt (9CI) (CA INDEX NAME)



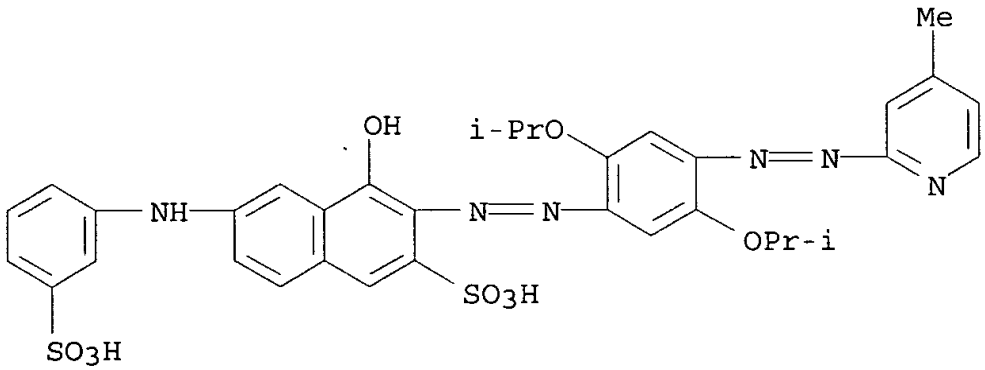
● 2 Li

RN 160312-85-6 HCA
CN 2,7-Naphthalenedisulfonic acid, 6-amino-4-hydroxy-3-[[4-[(4-propyl-2-pyridinyl)azo]-7-sulfo-1-naphthalenyl]azo]-, trilithium salt (9CI) (CA INDEX NAME)



●3 Li

RN 160312-86-7 HCA
CN 2-Naphthalenesulfonic acid, 3-[[2,5-bis(1-methylethoxy)-4-[(4-methyl-2-pyridinyl)azo]phenyl]azo]-4-hydroxy-6-[(3-sulfophenyl)amino]-, dilithium salt (9CI) (CA INDEX NAME)

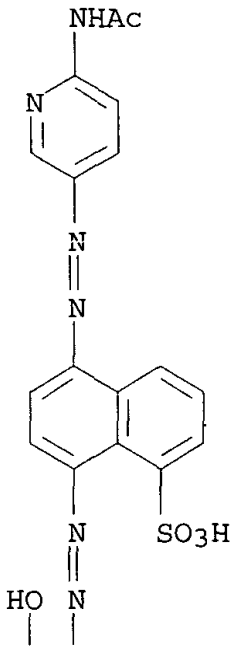


●2 Li

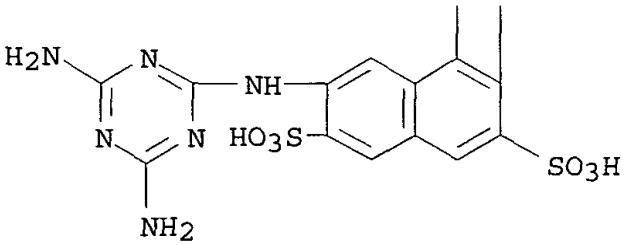
RN 160312-87-8 HCA
CN 2,7-Naphthalenedisulfonic acid, 3-[[4-[[6-(acetylamino)-3-pyridinyl]azo]-8-sulfo-1-naphthalenyl]azo]-6-[(4,6-diamino-1,3,5-triazin-2-yl)amino]-4-hydroxy-, tripotassium salt (9CI) (CA INDEX

NAME)

PAGE 1-A



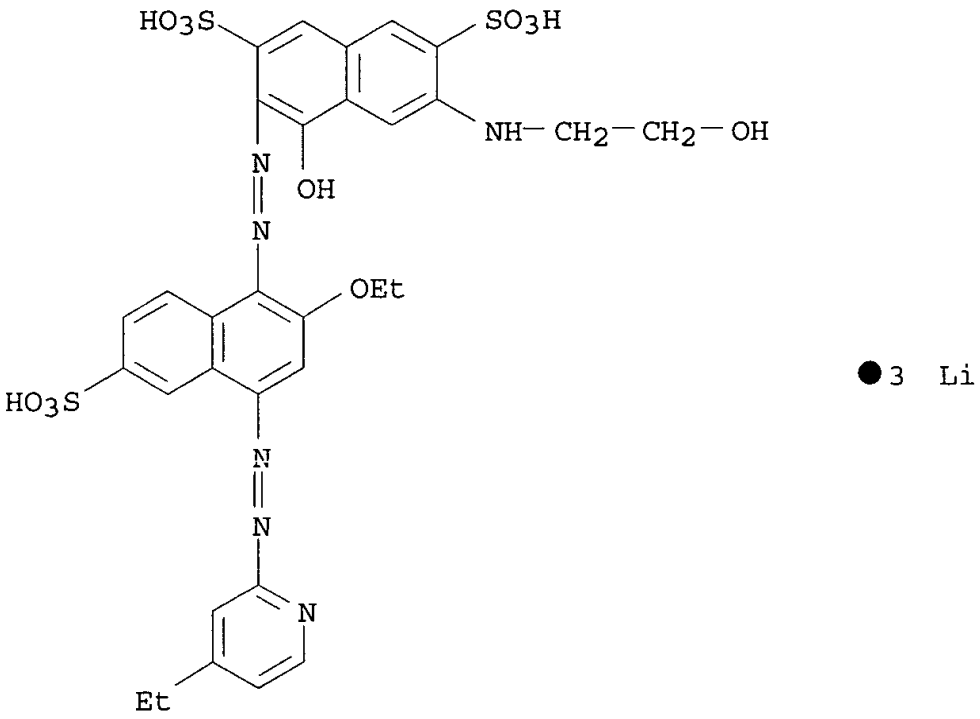
PAGE 2-A



● 3 K

RN 160312-88-9 HCA
CN 2,7-Naphthalenedisulfonic acid, 3-[[2-ethoxy-4-[(4-ethyl-2-pyridinyl)azo]-6-sulfo-1-naphthalenyl]azo]-4-hydroxy-6-[(2-

hydroxyethyl)amino]-, trilithium salt (9CI) (CA INDEX NAME)

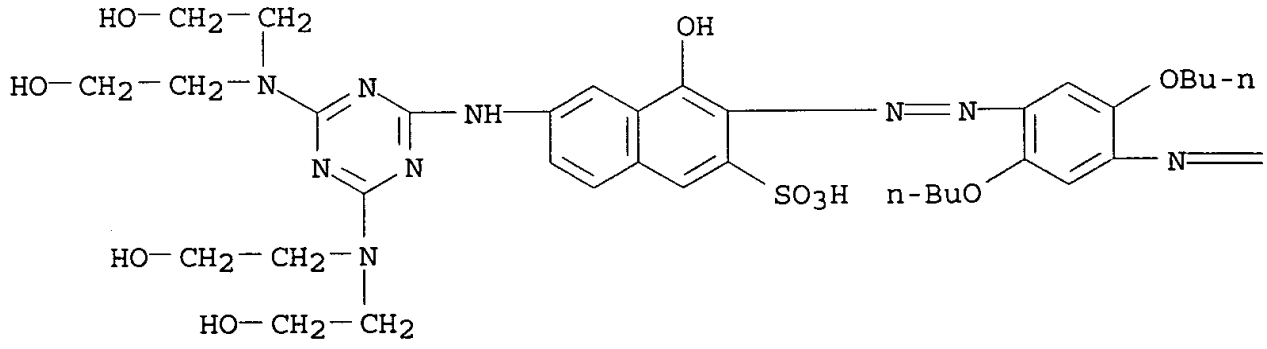


RN 160312-90-3 HCA
CN 2-Naphthalenesulfonic acid, 3-[[4-[(6-amino-3-pyridinyl)azo]-2,5-dibutoxyphenyl]azo]-6-[[4,6-bis[bis(2-hydroxyethyl)amino]-1,3,5-triazin-2-yl]amino]-4-hydroxy-, compd. with 3,6,9,12,15-pentaazaheptadecane-1,17-diamine (1:1) (9CI) (CA INDEX NAME)

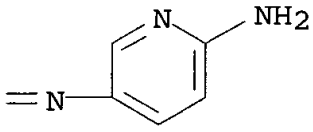
CM 1

CRN 160312-89-0
CMF C40 H52 N12 O10 S

PAGE 1-A



PAGE 1-B



CM 2

CRN 4403-32-1
CMF C12 H33 N7

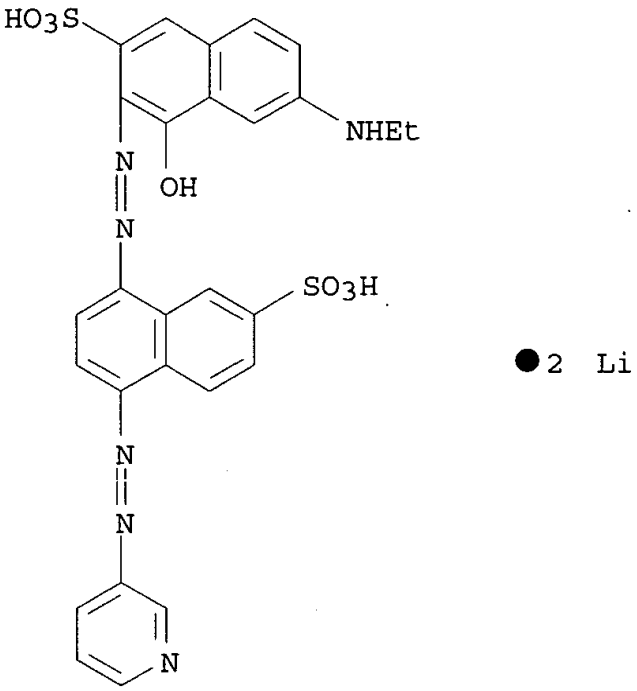
PAGE 1-A

$H_2N-CH_2-CH_2-NH-CH_2-CH_2-NH-CH_2-CH_2-NH-CH_2-CH_2-NH-CH_2-$

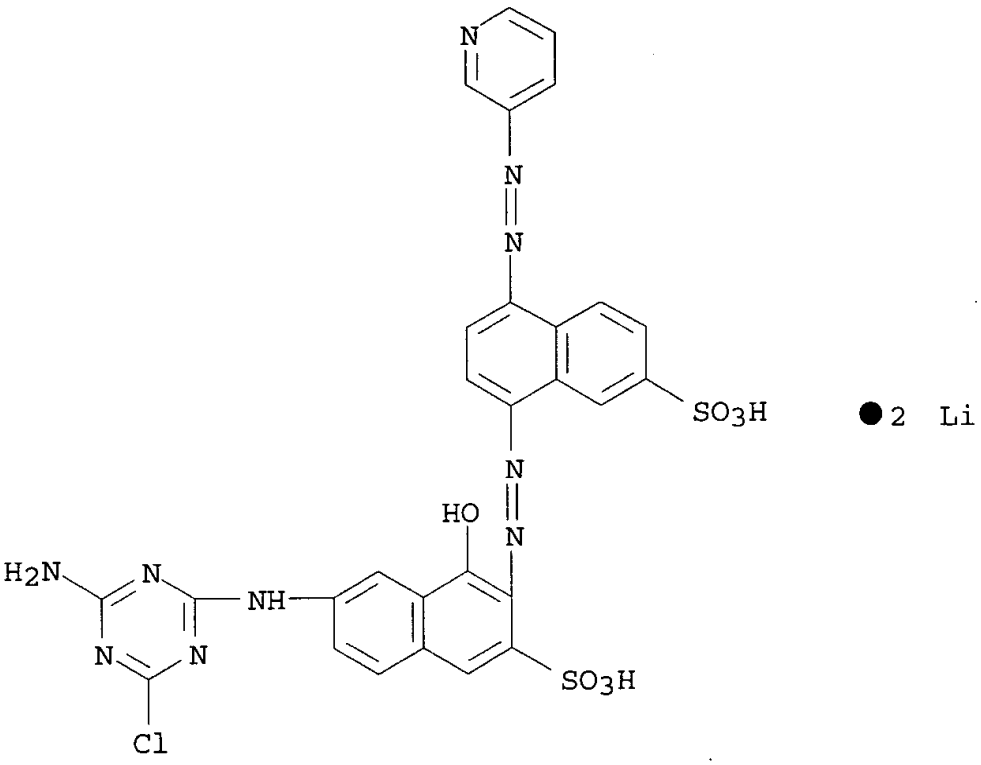
PAGE 1-B

$-CH_2-NH-CH_2-CH_2-NH_2$

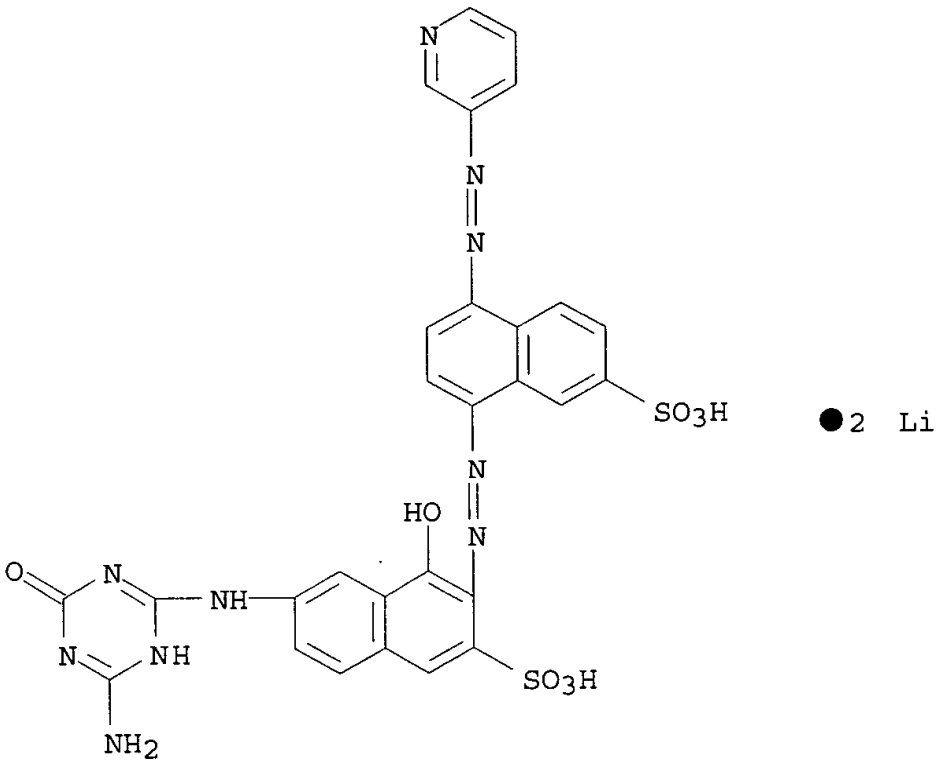
RN 160312-91-4 HCA
CN 2-Naphthalenesulfonic acid, 6-(ethylamino)-4-hydroxy-3-[[4-(3-pyridinylazo)-7-sulfo-1-naphthalenyl]azo]-, dilithium salt (9CI) (CA INDEX NAME)



RN 160312-92-5 HCA
CN 2-Naphthalenesulfonic acid, 6-[(4-amino-6-chloro-1,3,5-triazin-2-yl)amino]-4-hydroxy-3-[[4-(3-pyridinylazo)-7-sulfo-1-naphthalenyl]azo]-, dilithium salt (9CI) (CA INDEX NAME)

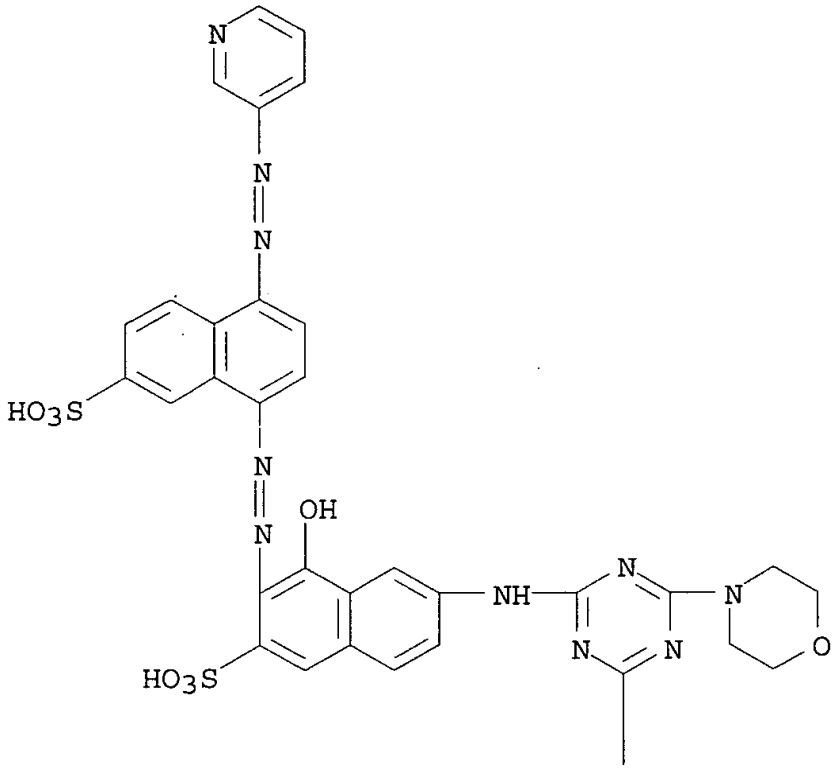


RN 160312-93-6 HCA
CN 2-Naphthalenesulfonic acid, 6-[(6-amino-1,4-dihydro-4-oxo-1,3,5-triazin-2-yl)amino]-4-hydroxy-3-[[4-(3-pyridinylazo)-7-sulfo-1-naphthalenyl]azo]-, dilithium salt (9CI) (CA INDEX NAME)

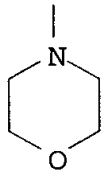


RN 160312-94-7 HCA
CN 2-Naphthalenesulfonic acid, 6-[(4,6-di-4-morpholinyl-1,3,5-triazin-2-yl)amino]-4-hydroxy-3-[[4-(3-pyridinylazo)-7-sulfo-1-naphthalenyl]azo]-, dilithium salt (9CI) (CA INDEX NAME)

PAGE 1-A

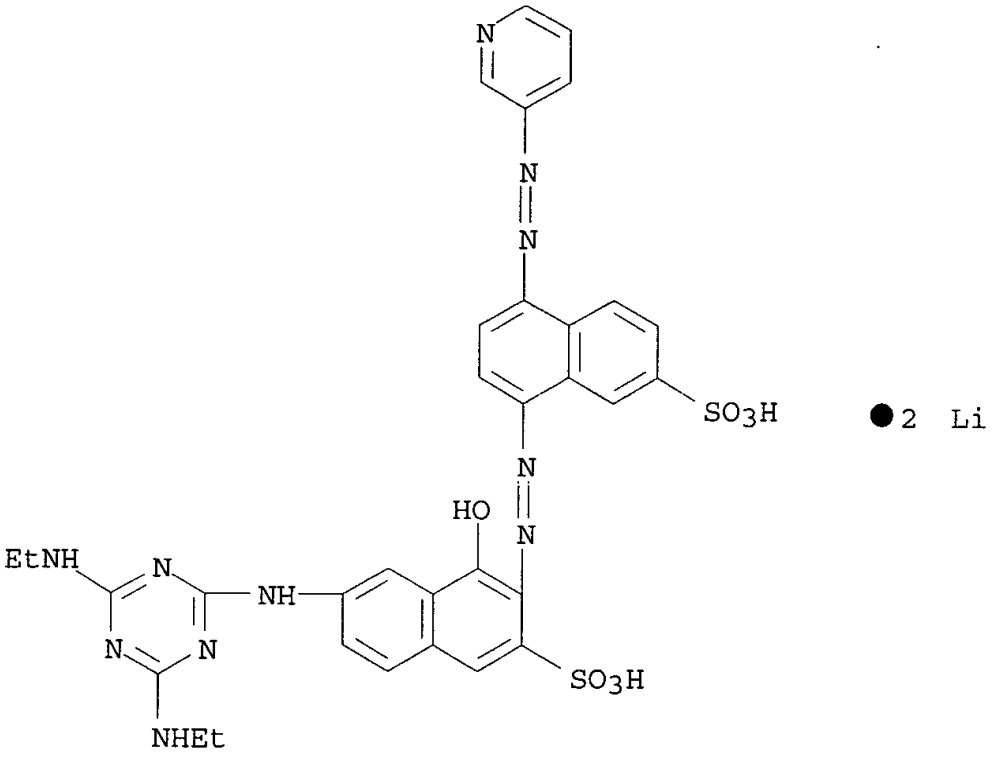


PAGE 2-A

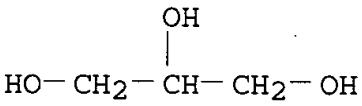


●2 Li

RN 160312-95-8 HCA
CN 2-Naphthalenesulfonic acid, 6-[[4,6-bis(ethylamino)-1,3,5-triazin-2-yl]amino]-4-hydroxy-3-[[4-(3-pyridinylazo)-7-sulfo-1-naphthalenyl]azo]-, dilithium salt (9CI) (CA INDEX NAME)



IT **56-81-5, Glycerin**, uses
(solvents; in stable aq. **jet-printing inks**)
RN 56-81-5 HCA
CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



IC ICM C09D011-00
ICS C09D011-02
CC 42-12 (Coatings, Inks, and Related Products)
ST disazo dye black ink stability; **jet printing ink** disazo dye; light resistance ink disazo dye; water resistance ink disazo dye
IT Dyes, azo
(disazo; in stable aq. **jet-printing inks**)
IT **Inks**
(**jet-printing**, water-thinned, stable black inks contg. disazo dyes)
IT **160312-79-8 160312-80-1 160312-81-2 160312-82-3 160312-83-4 160312-84-5**

160312-85-6 160312-86-7 160312-87-8
160312-88-9 160312-90-3 160312-91-4
160312-92-5 160312-93-6 160312-94-7
160312-95-8
(dyes; in aq. **jet-printing inks** with storage stability)

IT **56-81-5**, **Glycerin**, uses 67-63-0, 2-Propanol, uses 102-71-6, Triethanolamine, uses 107-21-1, Ethylene glycol, uses 111-46-6, Diethylene glycol, uses 112-34-5, Diethylene glycol monobutyl ether 872-50-4, N-Methylpyrrolidone, uses
(solvents; in stable aq. **jet-printing inks**)

L44 ANSWER 15 OF 20 HCA COPYRIGHT 2003 ACS
121:282312 Azo dyes, manufacture thereof, and **jet-printing inks** containing the same. Ariga, Tamotsu (Ricoh Kk, Japan). Jpn. Kokai Tokkyo Koho JP 06145545 A2 **19940524** Heisei, 10 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1992-302404 19921112.

GI

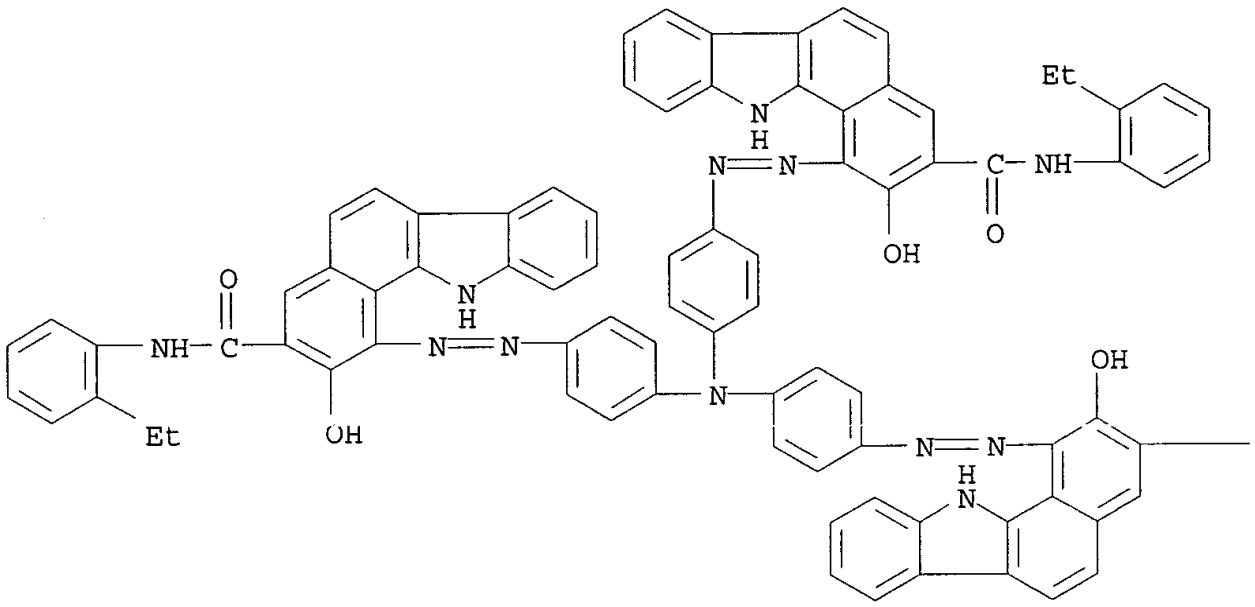
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title dyes providing high-quality images in **ink-jet printing** are I, II, and III (R1, R2 = alkyl, alkoxy, halogen, H; n = 1-4; M = alkali metal, amine residue, ammonium; X = halogen, Me, MeO, H). I (n = 0; R1, R2 = 2-Cl) was sulfonated to 2.5 sulfo group content. A **jet-printing ink** with good storability comprised the above sulfonated dye 3, diethylene glycol 22.5, **glycerin** 7.5, Deltop 0.2, and water 66.8%.

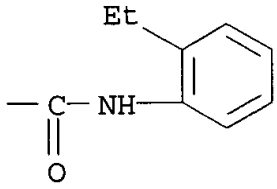
IT **84809-01-8DP**, sulfonated **84814-51-7DP**, sulfonated
(dye, manuf. of, for **jet-printing inks**)

RN 84809-01-8 HCA
CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1',1''-[nitrilotris(4,1-phenyleneazo)]tris[N-(2-ethylphenyl)-2-hydroxy- (9CI) (CA INDEX NAME)

PAGE 1-A

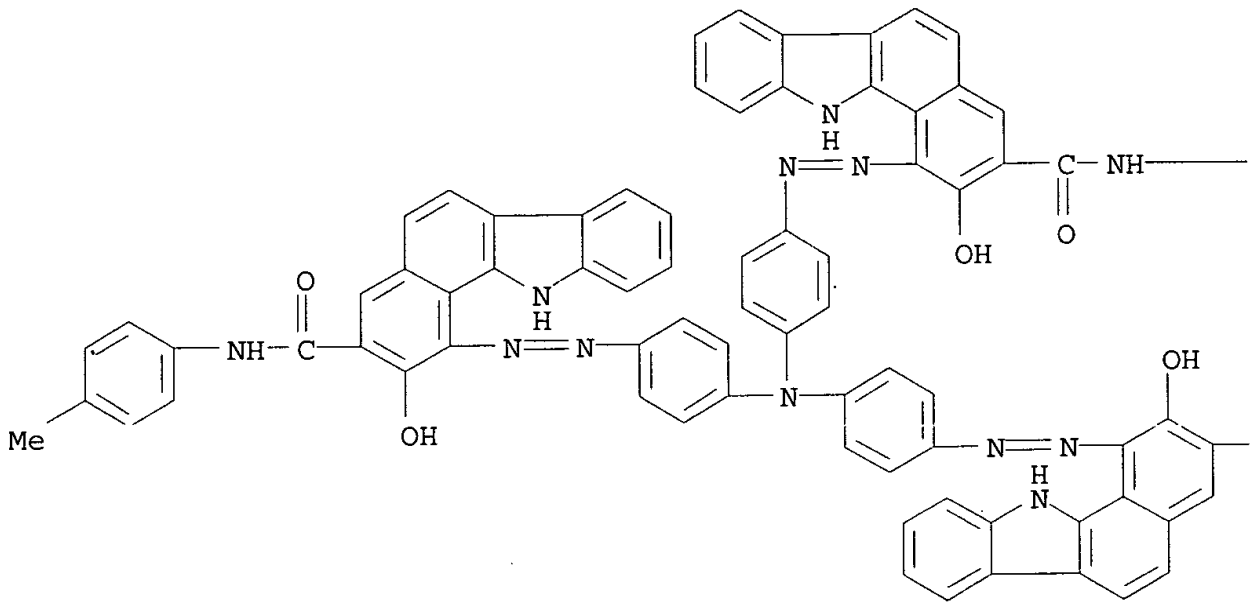


PAGE 1-B

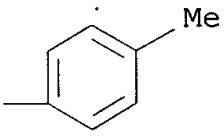


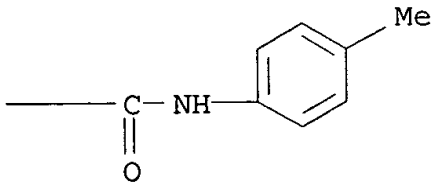
RN 84814-51-7 HCA
CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1',1''-[nitrilotris(4,1-phenyleneazo)]tris[2-hydroxy-N-(4-methylphenyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



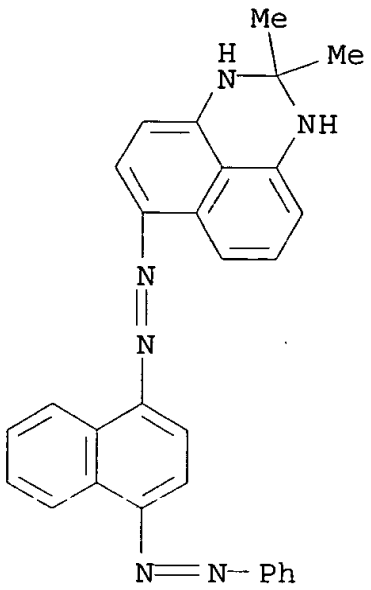


IC ICM C09B035-039
ICS C09B035-233; C09D011-00; C09D011-02

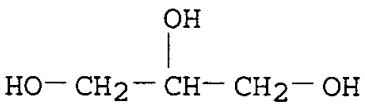
CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
Section cross-reference(s): 42

ST azo dye **jet printing ink**
IT Dyes, azo
(sulfonated, for **jet-printing inks**)
IT **Inks**
(**jet-printing**, sulfonated azo dyes for)
IT 82829-36-5DP, sulfonated **84809-01-8DP**, sulfonated **84814-51-7DP**, sulfonated 107321-61-9DP, sulfonated 151798-26-4DP, sulfonated
(dye, manuf. of, for **jet-printing inks**)

L44 ANSWER 16 OF 20 HCA COPYRIGHT 2003 ACS
121:258084 Preventing clogging of nozzles in drop-on-demand **ink -jet printers** during nonprinting intervals.
Vonasek, Jiri; Tunius, Mats Anders Robert; Rydinge, Klas (Markpoint Development AB, Swed.). PCT Int. Appl. WO 9403546 A1 **19940217**, 16 pp. DESIGNATED STATES: W: JP, US; RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1993-EP2005 19930727. PRIORITY: SE 1992-2243 19920728.
AB The clogging of the title printers is prevented by using an ink contg. (a) .gtoreq.1 solvent, (b) a non- or low-volatile liq. miscible to a certain extent in .gtoreq.1 solvent, and (c) a colorant that is sol. and(or) dispersible in the (a)-(b) mixt. but insol. in (b) alone. The relative quantities and soly. of the constituents are selected such that when printing terminates and a portion of the solvent evaps. at the nozzle orifice, a concn. of (c) and (b) builds up in the region of the nozzle orifice. This causes the (c) to migrate to an environment in which its affinity is greater, i.e. further within the nozzle. Typical inks contained water 0-15, ethylene glycol 5-20, EtOH 10-40, MEK 0-50, and Pro Jet Black MEK 10-60%.
IT **4197-25-5**
(preventing clogging of nozzles in drop-on-demand **ink-jet printers** during nonprinting intervals)
RN 4197-25-5 HCA
CN 1H-Perimidine, 2,3-dihydro-2,2-dimethyl-6-[[4-(phenylazo)-1-naphthalenyl]azo]- (9CI) (CA INDEX NAME)



IT **56-81-5**, 1,2,3-Propanetriol, uses
(solvent; preventing clogging of nozzles in drop-on-demand **ink-jet printers** during nonprinting intervals)
RN 56-81-5 HCA
CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



IC ICM C09D011-00
CC 42-12 (Coatings, Inks, and Related Products)
ST **jet printing ink** nonclogging; MEK solvent **jet printing ink**; ethanol solvent **jet printing ink**; ethylene glycol solvent **jet printing ink**
IT Dyes
Pigments
Solvents
(preventing clogging of nozzles in drop-on-demand **ink-jet printers** during nonprinting intervals)
IT Carbon black, uses
(preventing clogging of nozzles in drop-on-demand **ink-jet printers** during nonprinting intervals)
IT Alcohols, uses
Amides, uses
Esters, uses
Ketones, uses
(solvents; preventing clogging of nozzles in drop-on-demand

ink-jet printers during nonprinting intervals)

IT Alcohols, uses
(amino, solvents; preventing clogging of nozzles in drop-on-demand **ink-jet printers** during *nonprinting* intervals)

IT Ethers, uses
(glycol, solvents; preventing clogging of nozzles in drop-on-demand **ink-jet printers** during nonprinting intervals)

IT **Inks**
(**jet-printing**, preventing clogging of nozzles in drop-on-demand **ink-jet printers** during *nonprinting* intervals)

IT Alcohols, uses
(polyhydric, solvents; preventing clogging of nozzles in drop-on-demand **ink-jet printers** during nonprinting intervals)

IT 54060-92-3, C.I. Basic Yellow 28
(Astrazon Golden Yellow GL FW; preventing clogging of nozzles in drop-on-demand **ink-jet printers** during nonprinting intervals)

IT 12237-22-8, C.I. Solvent Black 27
(Duasyn Black A-RGVP 280; preventing clogging of nozzles in drop-on-demand **ink-jet printers** during nonprinting intervals)

IT 12222-04-7, C.I. Direct Blue 199
(Levacel Fast Turquoise Blue BLN; preventing clogging of nozzles in drop-on-demand **ink-jet printers** during *nonprinting* intervals)

IT 7786-30-3, Magnesium chloride, uses 10043-52-4, Calcium chloride, uses
(preventing clogging of nozzles in drop-on-demand **ink-jet printers** during nonprinting intervals)

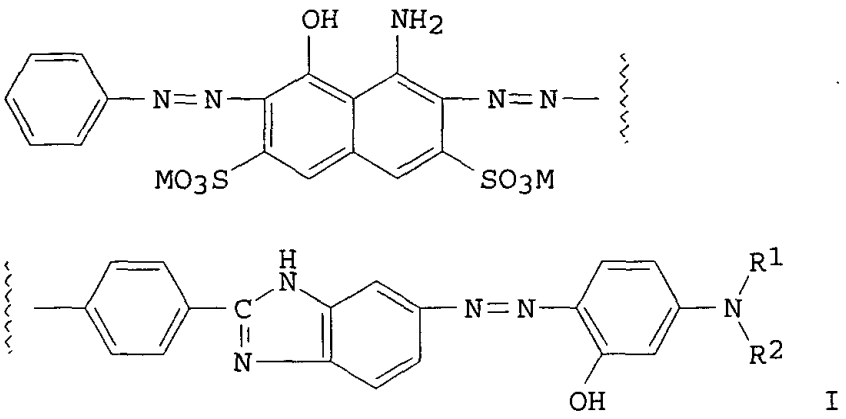
IT **4197-25-5** 12239-74-6, Savinyl Fire Red 3GLS 116410-83-4, C.I. Solvent Black 47
(preventing clogging of nozzles in drop-on-demand **ink-jet printers** during *nonprinting* intervals)

IT **56-81-5**, 1,2,3-Propanetriol, uses 64-17-5, Ethanol, uses 67-64-1, Acetone, uses 71-23-8, 1-Propanol, uses 75-12-7, Formamide, uses 78-93-3, MEK, uses 102-71-6, uses 107-21-1, 1,2-Ethanediol, uses 108-10-1, MIBK 141-78-6, Acetic acid ethyl ester, uses 7732-18-5, Water, uses
(solvent; preventing clogging of nozzles in drop-on-demand **ink-jet printers** during nonprinting intervals)

L44 ANSWER 17 OF 20 HCA COPYRIGHT 2003 ACS

121:85976 Dyes for **jet printing inks**.
Yoshida, Yoshiharu; Hayashi, Hiroko (Seiko Epson Corp, Japan). Jpn. Kokai Tokkyo Koho JP 06001937 A2 **19940111** Heisei, 10 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1992-162886 19920622.

GI



I

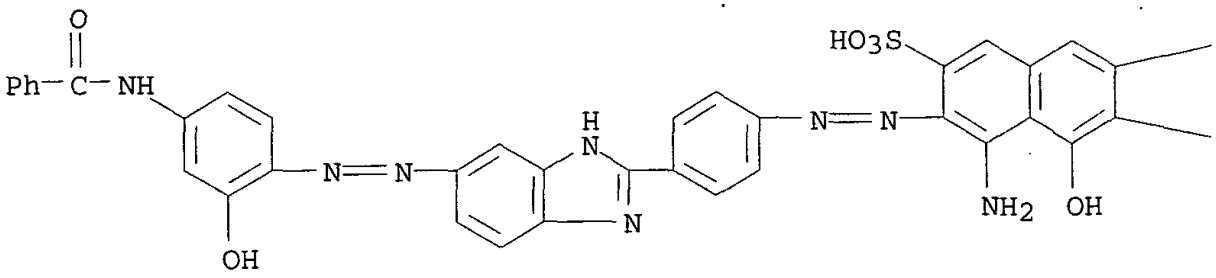
AB The title inks, showing storage stability and giving intense colors, contain water-sol. dyes I (R1 = C1-10 group contg. OH, NH2, Ph, oxo, and/or ether groups; R2 = C1-10 group contg. OH, NH2, Ph, and/or ether groups; M = H, Li, Na, K, ammonium, amine group). An ink contained I (R1 = H; R2 = 2-hydroxybutyl; M = Na) 3, **glycerol** 8, EtOH 6, and H2O 83%.

IT **156487-36-4 156487-37-5 156487-38-6**
156487-39-7 156487-40-0 156487-41-1
156487-42-2 156487-44-4 156487-45-5
156487-46-6 156487-47-7 156487-48-8
156487-49-9
(dyes, **jet printing inks** contg., storage-stable)

RN 156487-36-4 HCA

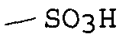
CN 2,7-Naphthalenedisulfonic acid, 4-amino-3-[[4-[5-[[4-(benzoylamino)-2-hydroxyphenyl]azo]-1H-benzimidazol-2-yl]phenyl]azo]-5-hydroxy-6-(phenylazo)-, dilithium salt (9CI) (CA INDEX NAME)

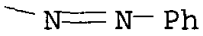
PAGE 1-A



●2 Li

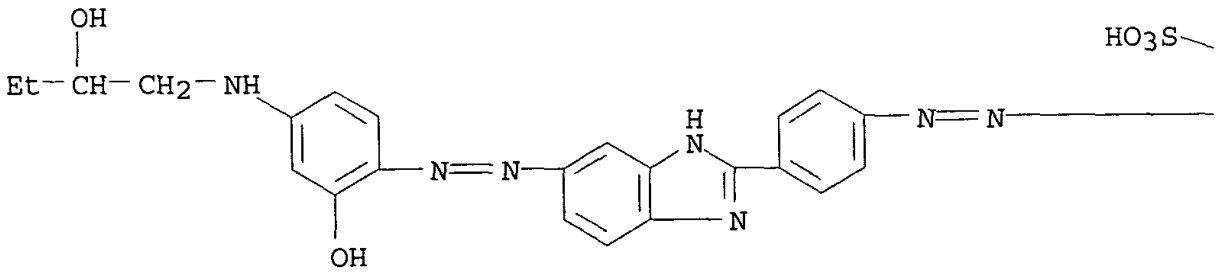
PAGE 1-B





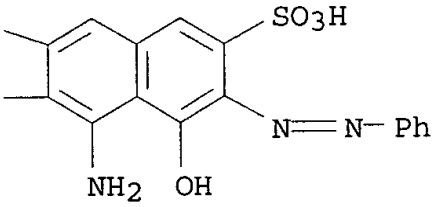
RN 156487-37-5 HCA
CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3-[[4-[5-[[2-hydroxy-4-[(2-hydroxybutyl)amino]phenyl]azo]-1H-benzimidazol-2-yl]phenyl]azo]-6-(phenylazo)-, disodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



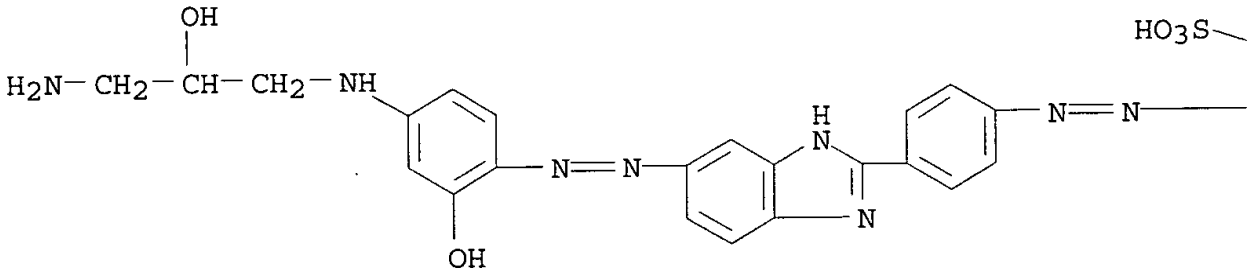
2 Na

PAGE 1-B



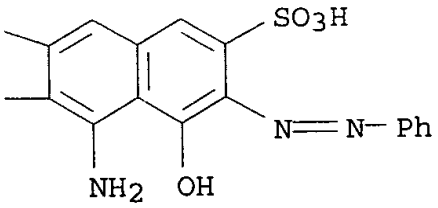
RN 156487-38-6 HCA
CN 2,7-Naphthalenedisulfonic acid, 4-amino-3-[[4-[5-[[4-[(3-amino-2-hydroxypropyl)amino]-2-hydroxyphenyl]azo]-1H-benzimidazol-2-yl]phenyl]azo]-5-hydroxy-6-(phenylazo)-, diammonium salt (9CI) (CA INDEX NAME)

PAGE 1-A



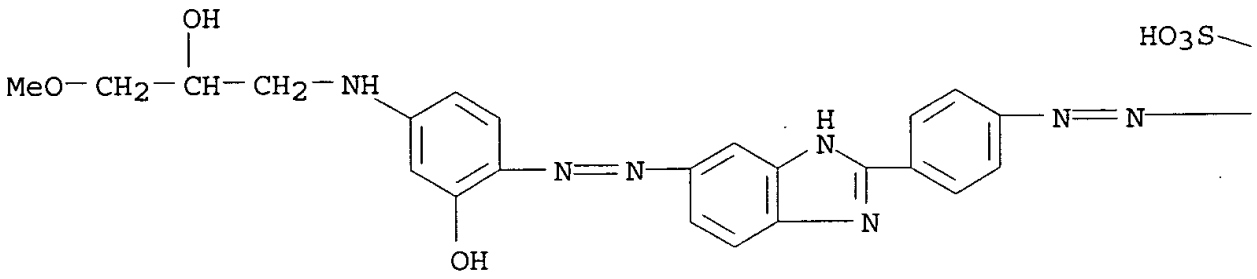
● 2 NH_3

PAGE 1-B



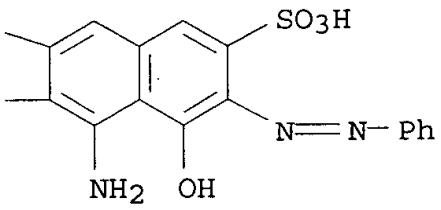
RN 156487-39-7 HCA
CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3-[[4-[5-[[2-hydroxy-4-[(2-hydroxy-3-methoxypropyl)amino]phenyl]azo]-1H-benzimidazol-2-yl]phenyl]azo]-6-(phenylazo)-, diammonium salt (9CI) (CA INDEX NAME)

PAGE 1-A



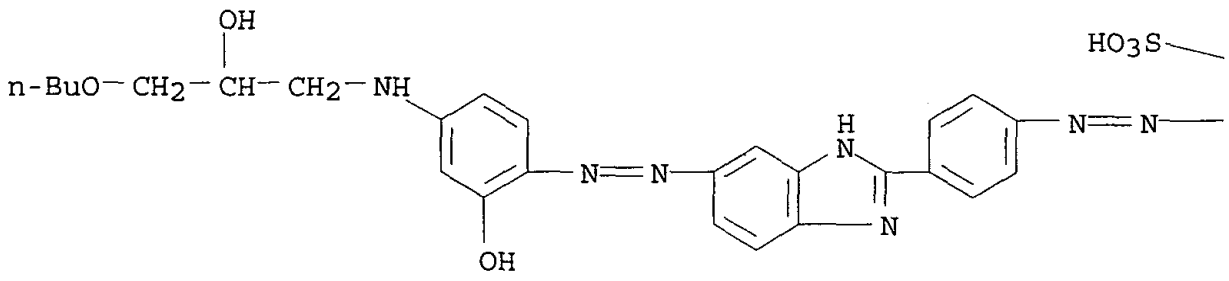
● 2 NH_3

PAGE 1-B



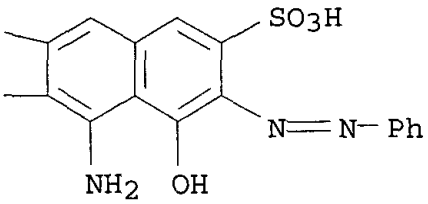
RN 156487-40-0 HCA
CN 2,7-Naphthalenedisulfonic acid, 4-amino-3-[[4-[5-[[4-[(3-butoxy-2-hydroxypropyl)amino]-2-hydroxyphenyl]azo]-1H-benzimidazol-2-yl]phenyl]azo]-5-hydroxy-6-(phenylazo)-, disodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



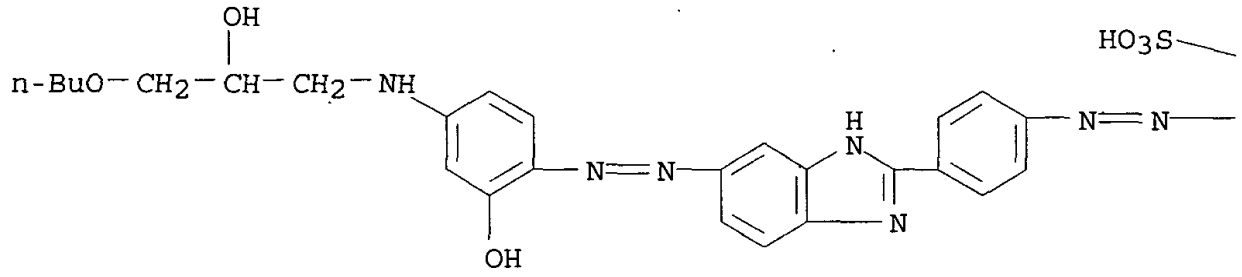
●2 Na

PAGE 1-B



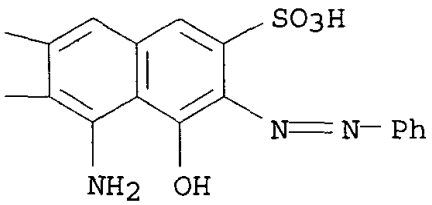
RN 156487-41-1 HCA
CN 2,7-Naphthalenedisulfonic acid, 4-amino-3-[[4-[5-[[4-[(3-butoxy-2-hydroxypropyl)amino]-2-hydroxyphenyl]azo]-1H-benzimidazol-2-yl]phenyl]azo]-5-hydroxy-6-(phenylazo)-, dilithium salt (9CI) (CA INDEX NAME)

PAGE 1-A



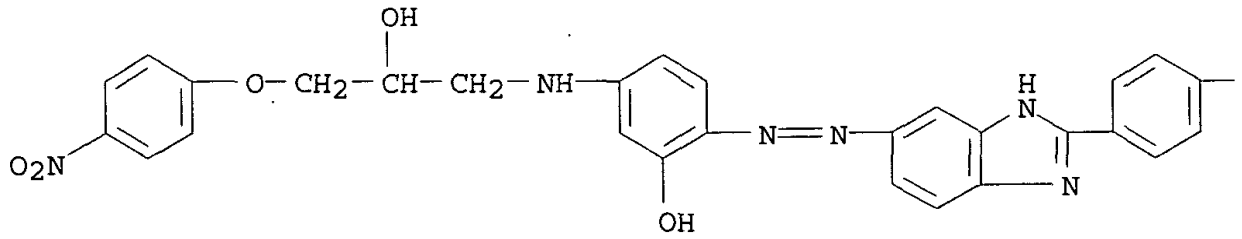
●2 Li

PAGE 1-B



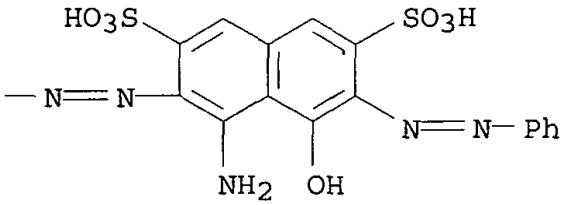
RN 156487-42-2 HCA
CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3-[[4-[5-[[2-hydroxy-4-[[2-hydroxy-3-(4-nitrophenoxy)propyl]amino]phenyl]azo]-1H-benzimidazol-2-yl]phenyl]azo]-6-(phenylazo)-, disodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



2 Na

PAGE 1-B

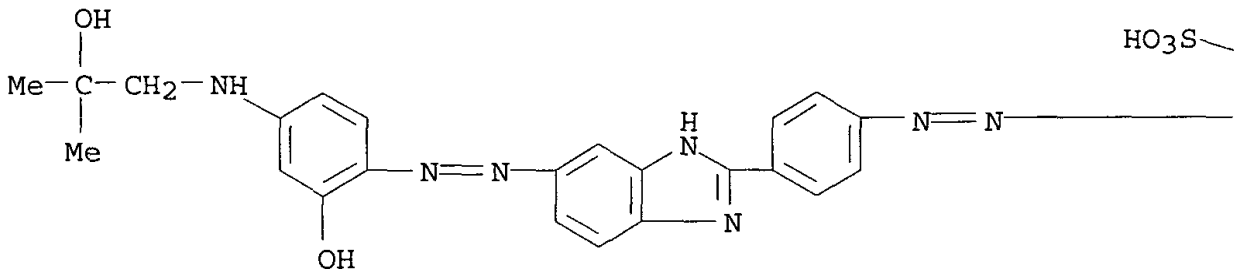


RN 156487-44-4 HCA
CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3-[[4-[5-[[2-hydroxy-4-[(2-hydroxy-2-methylpropyl)amino]phenyl]azo]-1H-benzimidazol-2-yl]phenyl]azo]-6-(phenylazo)-, compd. with 2,2',2''-nitrilotris[ethanol] (1:1) (9CI) (CA INDEX NAME)

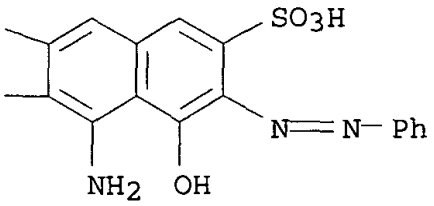
CM 1

CRN 156487-43-3
CMF C39 H34 N10 O9 S2

PAGE 1-A



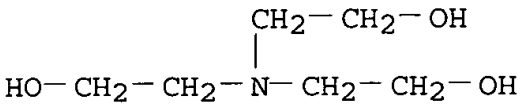
PAGE 1-B



CM 2

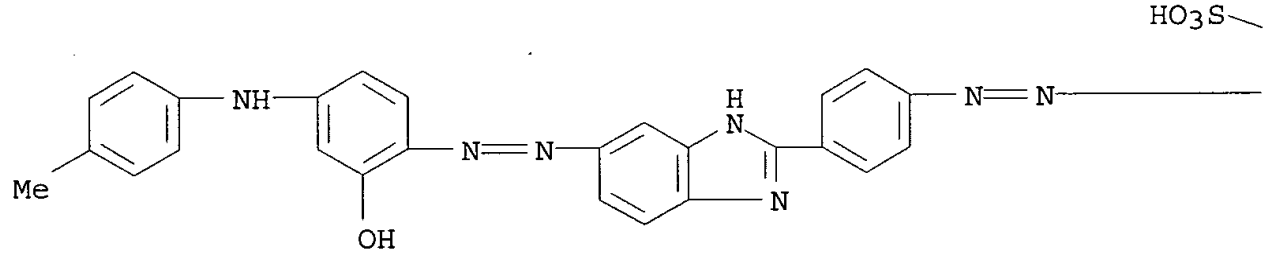
CRN 102-71-6

CMF C6 H15 N O3



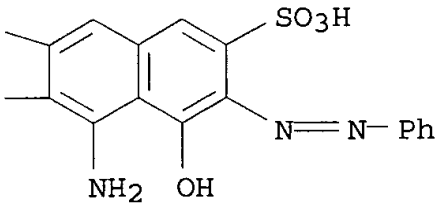
RN 156487-45-5 HCA
CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3-[[4-[5-[[2-hydroxy-4-[(4-methylphenyl)amino]phenyl]azo]-1H-benzimidazol-2-yl]phenyl]azo]-6-(phenylazo)-, disodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



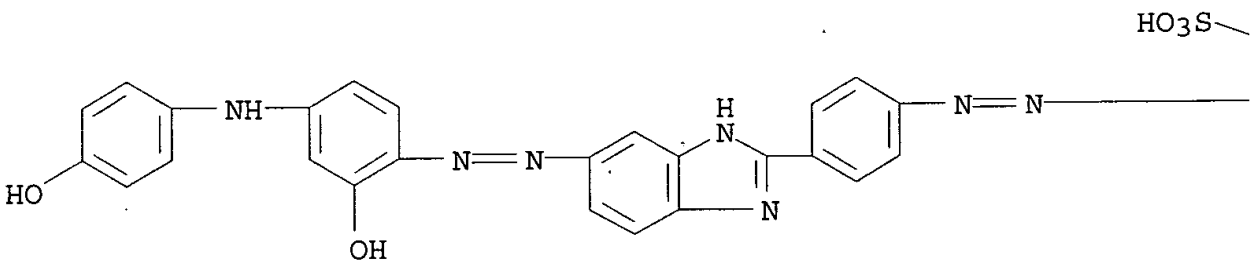
●2 Na

PAGE 1-B



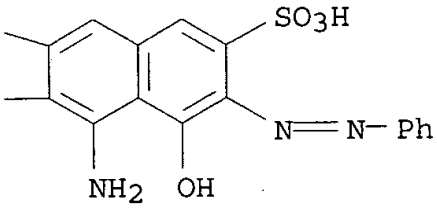
RN 156487-46-6 HCA
CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3-[[4-[5-[[2-hydroxy-4-[(4-hydroxyphenyl)amino]phenyl]azo]-1H-benzimidazol-2-yl]phenyl]azo]-6-(phenylazo)-, disodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



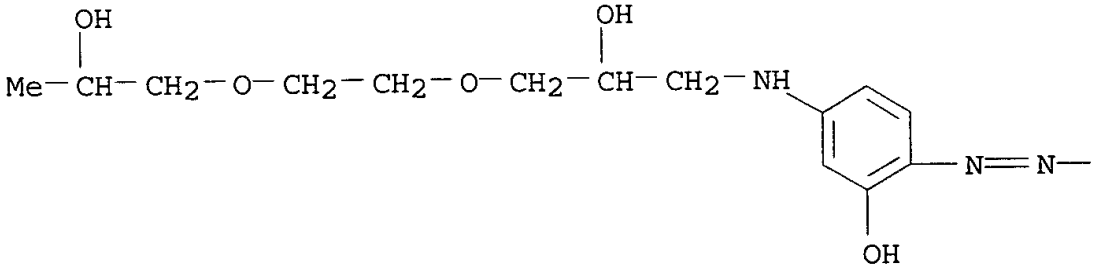
● 2 Na

PAGE 1-B



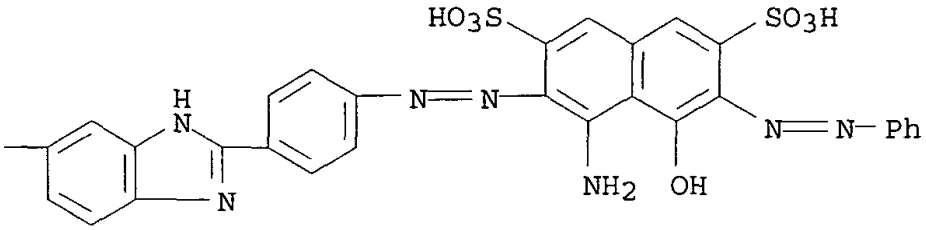
RN 156487-47-7 HCA
CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3-[[4-[5-[[2-hydroxy-4-[[2-hydroxy-3-[2-(2-hydroxypropoxy)ethoxy]propyl]amino]phenyl]azo]-1H-benzimidazol-2-yl]phenyl]azo]-6-(phenylazo)-, disodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



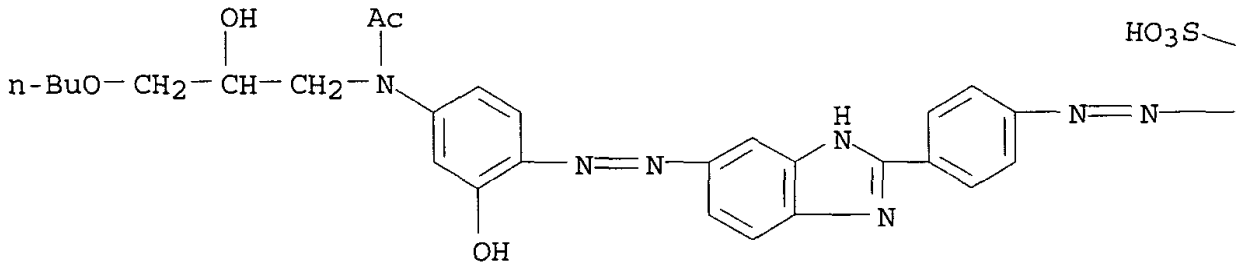
2 Na

PAGE 1-B



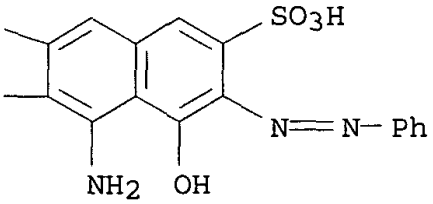
RN 156487-48-8 HCA
CN 2,7-Naphthalenedisulfonic acid, 3-[[4-[5-[[4-[acetyl(3-butoxy-2-hydroxypropyl)amino]-2-hydroxyphenyl]azo]-1H-benzimidazol-2-yl]phenyl]azo]-4-amino-5-hydroxy-6-(phenylazo)-, dilithium salt (9CI) (CA INDEX NAME)

PAGE 1-A



● 2 Li

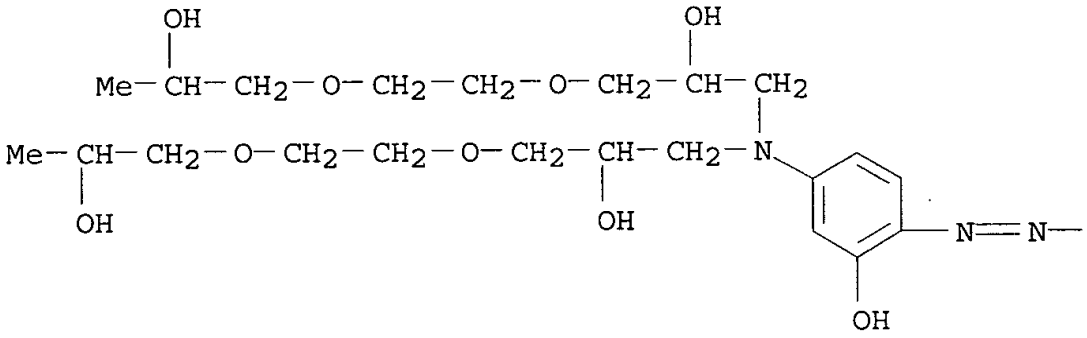
PAGE 1-B



RN 156487-49-9 HCA
CN 2,7-Naphthalenedisulfonic acid, 4-amino-3-[[4-[5-[[4-[bis[2-hydroxy-3-[2-(2-hydroxypropoxy)ethoxy]propyl]amino]-2-hydroxyphenyl]azo]-1H-benzimidazol-2-yl]phenyl]azo]-5-hydroxy-6-(phenylazo)-, disodium

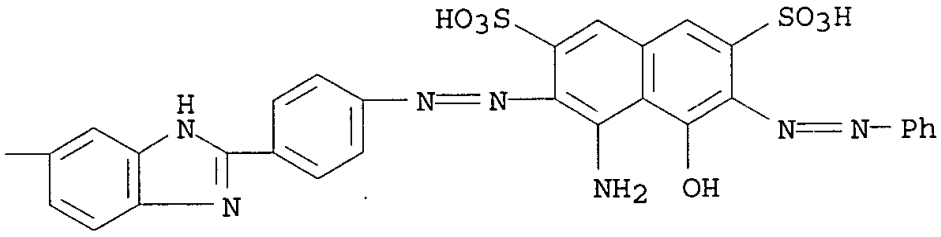
salt (9CI) (CA INDEX NAME)

PAGE 1-A



● 2 Na

PAGE 1-B



IC ICM C09D011-00
ICS C09D011-02
ICA C09B035-46; C09B067-44
CC 42-12 (Coatings, Inks, and Related Products)
ST azo dye **ink jet printing**
IT Dyes, azo
(**jet printing inks** contg., storage-stable)
IT **Inks**
(**jet-printing**, azo dye-contg., storage-stable)
IT **156487-36-4 156487-37-5 156487-38-6 156487-39-7 156487-40-0 156487-41-1 156487-42-2 156487-44-4 156487-45-5 156487-46-6 156487-47-7 156487-48-8 156487-49-9**
(dyes, **jet printing inks** contg.,

storage-stable)

L44 ANSWER 18 OF 20 HCA COPYRIGHT 2003 ACS
115:185567 Water-thinned black **inks** for **jet printers**. Inoue, Sadahiro; Tabayashi, Isao; Yamada, Yutaka; Ametani, Shinji (Dainippon Ink and Chemicals, Inc., Japan). Jpn. Kokai Tokkyo Koho JP 03100080 A2 **19910425** Heisei, 5 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1989-237722 19890913.

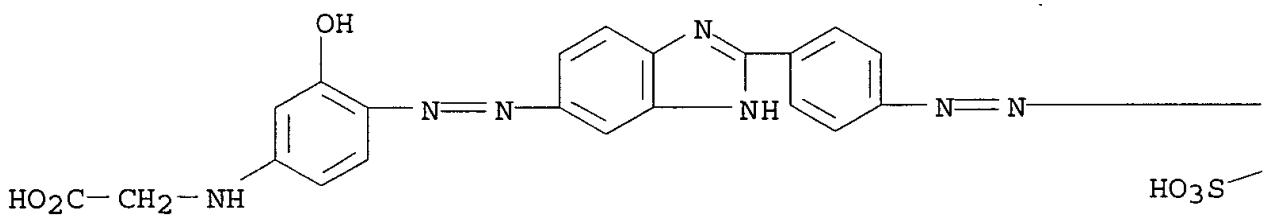
AB The title inks, anticlogging and storage-stable with good light resistance, contain mixts. of water-sol. dyes C.I. Food Black 1 and/or C.I. Food Black 2 (I) and C.I. Direct Black 168 (II) and/or C.I. Direct Black 171. An ink contg. I 0.7, II 2.8, **glycerol** 5.0, BuO(CH2CH2O)2H 4.5, phenoxyethanol 2.0, triethanolamine 0.5, Na dehydroacetate 0.1, and H2O 86.9% was stable during storage at 0.degree. and 50.degree., was delivered continuously without clogging for 200 h, and produced light-resistant images.

IT **135990-85-1**, C.I. Direct Black 171
(**jet-printing inks** contg., aq., stable, anticlogging, light-resistant)

RN 135990-85-1 HCA

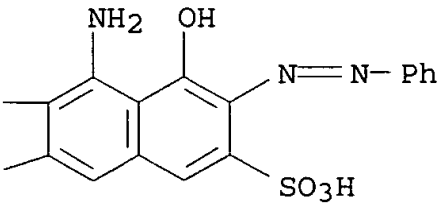
CN Glycine, N-[4-[[2-[4-[[1-amino-8-hydroxy-7-(phenylazo)-3,6-disulfo-2-naphthalenyl]azo]phenyl]-1H-benzimidazol-5-yl]azo]-3-hydroxyphenyl]-, disodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



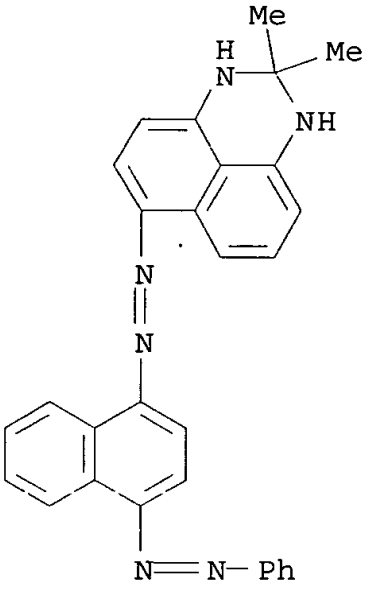
●2 Na

PAGE 1-B



IC ICM C09D011-00
ICS C09D011-02; C09D011-16
CC 42-12 (Coatings, Inks, and Related Products)
Section cross-reference(s): 41
ST **jet printing ink** black dye; stability
ink jet printing; light resistance
ink jet printing
IT Dyes
(black, **jet-printing inks** contg., light-resistant)
IT Light-resistant materials
(**inks**, **jet-printing**, anticlogging, stable, aq., black dyes for)
IT **Inks**
(**jet-printing**, anticlogging, stable, light-resistant, aq., black dyes for)
IT **Inks**
(**jet-printing**, anticlogging, light-resistant, storage-stable, water-thinned, black dyes for)
IT 2118-39-0, C.I. Food Black 2 2519-30-4, C.I. Food Black 1 85631-88-5, C.I. Direct Black 168 **135990-85-1**, C.I. Direct Black 171
(**jet-printing inks** contg., aq., stable, anticlogging, light-resistant)

L44 ANSWER 19 OF 20 HCA COPYRIGHT 2003 ACS
111:136208 Recording liquids for **ink-jet printing** and writing. Takimoto, Hiroshi; Yoneyama, Tomio; Sano, Hideo (Mitsubishi Kasei Corp., Japan). Jpn. Kokai Tokkyo Koho JP 01011171 A2 **19890113** Heisei, 4 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1987-165962 19870702.
AB Fast-drying title liqs. comprise disperse dyes or oil-sol. dyes and N-(hydroxyalkyl)pyrrolidone or N-(hydroxyalkoxyalkyl)pyrrolidone. An aq. soln. contg. C.I. Disperse Red 4 3, N-(hydroxyethyl)pyrrolidone 50, BuO(CH2CH2O)2H 20, **glycerin** 7, and diacetone alc. 20% was filtered to give an ink which showed no pptn. during storage for 6 mo at -30 and +60.degree., did not clog the nozzle of a **jet printer** during 2 mo without printing, and gave fast-drying prints with good sharpness and light resistance.
IT **4197-25-5**, C.I. Solvent Black 3
(**inks** contg., for **jet printing** and writing)
RN 4197-25-5 HCA
CN 1H-Perimidine, 2,3-dihydro-2,2-dimethyl-6-[[4-(phenylazo)-1-naphthalenyl]azo]- (9CI) (CA INDEX NAME)



IC ICM C09D011-00
ICS C09D011-00

CC 42-12 (Coatings, Inks, and Related Products)

ST **j t printing ink** anticlogging; drying **jet printing ink**; writing ink rapid drying; hydroxyalkylpyrrolidone ink printing writing; disperse dye ink printing writing; oil soly disperse dye ink

IT Dyes
(disperse, **inks** contg., for **jet printing** and writing)

IT **Inks**
(**jet-printing**, anticlogging, rapid-drying, storage-stable, contg. dyes and hydroxyalkyl derivs. of pyrrolidone)

IT Dyes
(oil-sol., **inks** contg., for **jet printing** and writing)

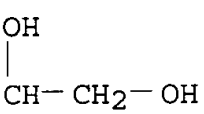
IT 128-85-8, C.I. Solvent Blue 11 1328-54-7, C.I. Solvent Blue 25 2176-49-0, N-(Hydroxyethoxyethyl)pyrrolidone 2379-90-0, C.I. Disperse Red 4 2872-48-2, C.I. Disperse Red 11 3443-93-4, C.I. Disperse Blue 6 3445-11-2, N-(Hydroxyethyl)pyrrolidone **4197-25-5**, C.I. Solvent Black 3 4486-13-9, C.I. Disperse Blue 5 6300-37-4, C.I. Disperse Yellow 7 10343-55-2, C.I. Solvent Yellow 19 10380-30-0, C.I. Solvent Red 100 11099-03-9, C.I. Solvent Black 5 15791-78-3 42181-13-5, N-(Dihydroxypropyl)pyrrolidone 60650-24-0, C.I. Solvent Red 82 122726-22-1, N-(Hydroxypropyl)pyrrolidone 122726-23-2, N-(Hydroxypropoxypropyl)pyrrolidone
(**inks** contg., for **jet printing** and writing)

L44 ANSWER 20 OF 20 HCA COPYRIGHT 2003 ACS
105:228586 Aqueous **jet-printing ink**.
Shimada, Masaru; Kawanishi, Toshiyuki; Murakami, Kakuji; Aruga, Tamotsu; Uemura, Hiroyuki (Ricoh Co., Ltd., Japan). Ger. Offen. DE 3537726 A1 **19860424**, 24 pp. (German). CODEN: GWXXBX.
APPLICATION: DE 1985-3537726 19851023. PRIORITY: JP 1984-221279 19841023.

AB Nonclogging aq. **jet-printing inks**, giving nonbleeding print with good sharpness and thickness, contain terephthalanilide deriv. disazo dyes, humectants, polyols, and mildewcides-preservatives. Thus, an ink contg. diazotized diaminoterephthalanilideH acid coupling product (1:2) 3, diethylene glycol 15, **glycerol** 5, Na dehydroacetate 0.1, and water 76.9% had viscosity 1.95 cP and did not clog a 30-.mu. **printing jet** in 1000 h continuous use or 1 mo intermittent use.

IT **56-81-5**, uses and miscellaneous
(humectants, for **jet-printing inks**)

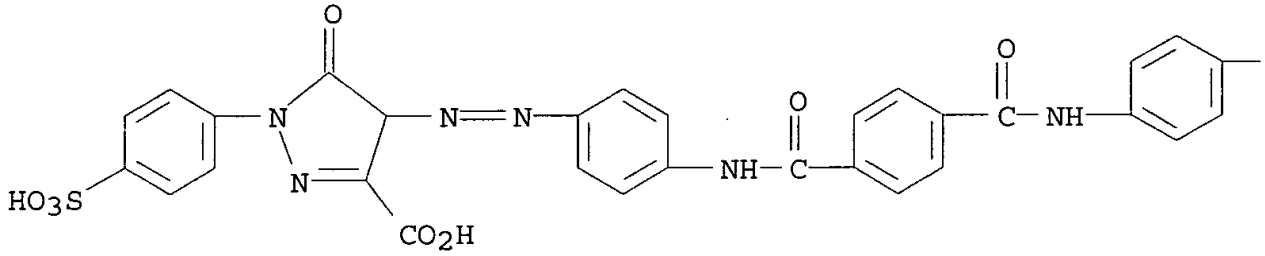
RN 56-81-5 HCA
CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



IT **103823-49-0 103823-50-3 103823-51-4 103823-52-5 103823-53-6**
(**inks** contg., aq. **jet-printing** nonclogging)

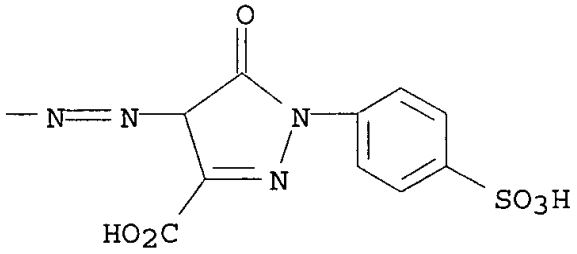
RN 103823-49-0 HCA
CN 1H-Pyrazole-3-carboxylic acid, 4,4'-[1,4-phenylenebis(carbonylimino-4,1-phenyleneazo)]bis[4,5-dihydro-5-oxo-1-(4-sulfophenyl)-, tetrasodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



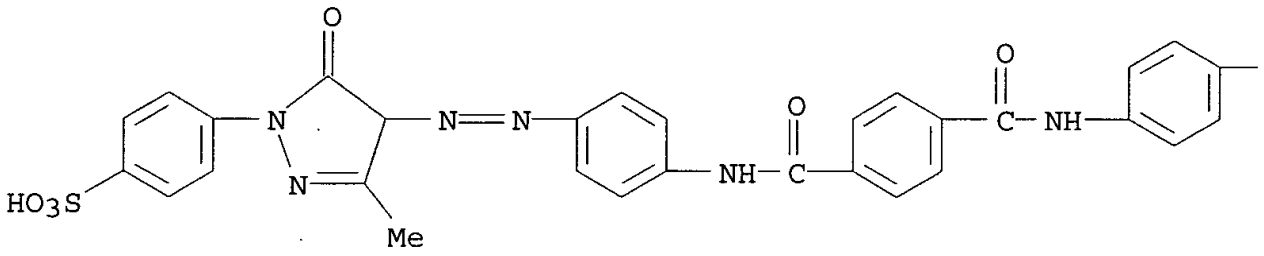
● 4 Na

PAGE 1-B



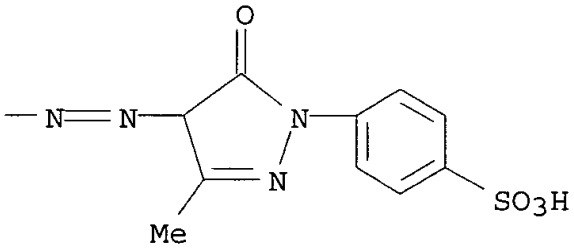
RN 103823-50-3 HCA
CN Benzenesulfonic acid, 4,4'-[1,4-phenylenebis[carbonylimino-4,1-phenyleneazo(4,5-dihydro-3-methyl-5-oxo-1H-pyrazole-4,1-diyl)]]bis-, disodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



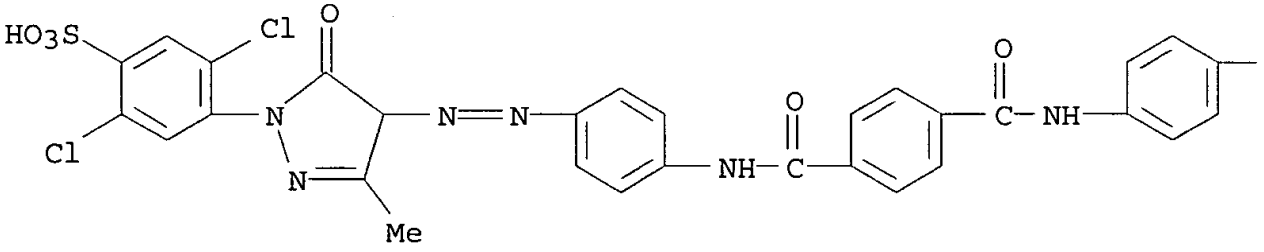
● 4 Na

PAGE 1-B



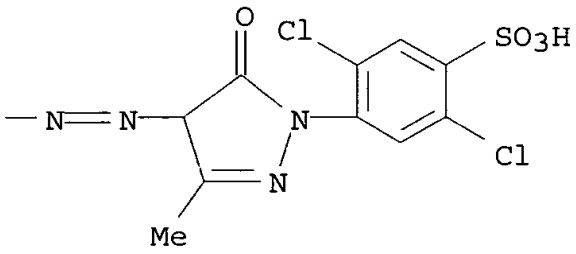
RN 103823-51-4 HCA
CN Benzenesulfonic acid, 4,4'-[1,4-phenylenebis[carbonylimino-4,1-phenyleneazo(4,5-dihydro-3-methyl-5-oxo-1H-pyrazole-4,1-diyl)]]bis[2,5-dichloro-, disodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



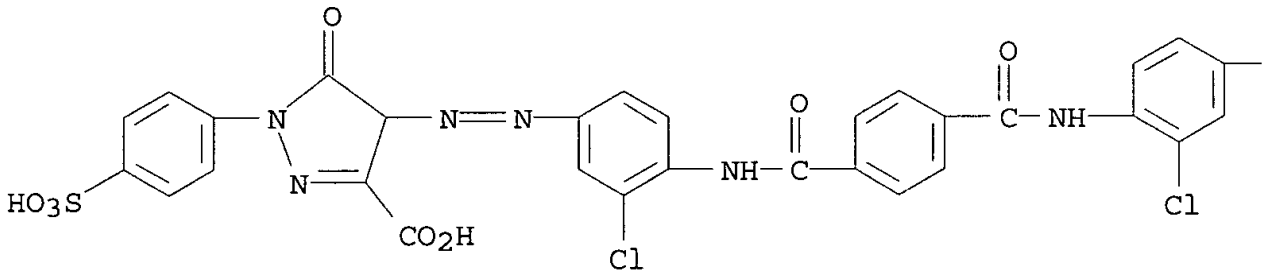
2 Na

PAGE 1-B



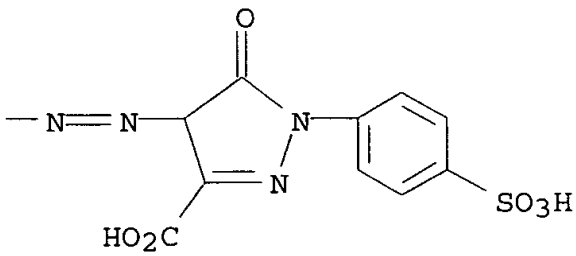
RN 103823-52-5 HCA
CN 1H-Pyrazole-3-carboxylic acid, 4,4'-[1,4-phenylenebis[carbonylimino(3-chloro-4,1-phenylene)azo]]bis[4,5-dihydro-5-oxo-1-(4-sulfophenyl)-, tetrasodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



● 4 Na

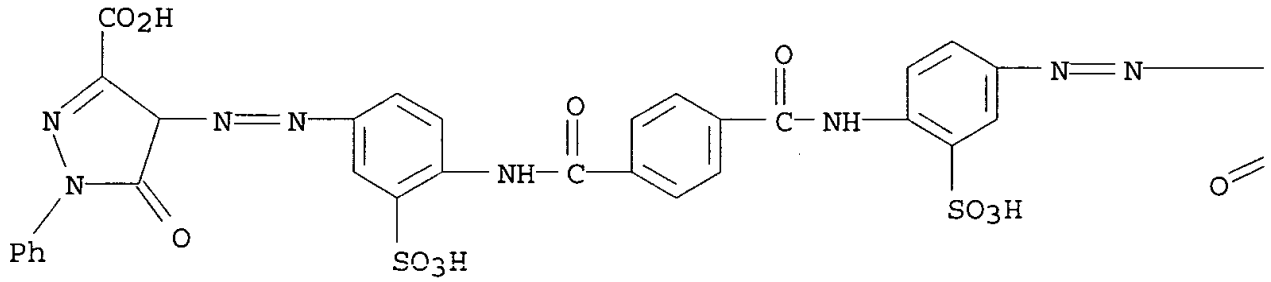
PAGE 1-B



RN 103823-53-6 HCA

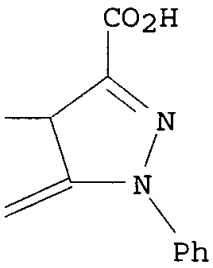
CN 1H-Pyrazole-3-carboxylic acid, 4,4'-[1,4-phenylenebis[carbonylimino(3-sulfo-4,1-phenylene)azo]]bis[4,5-dihydro-5-oxo-1-phenyl-, tetrasodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



●4 Na

PAGE 1-B



IC ICM C09D011-16
ICS C09B035-021; D21H001-46
CC 42-2 (Coatings, Inks, and Related Products)
ST **jet printing ink** clogging resistance; azo dye **ink jet printing**; terephthalanilide deriv dye ink; H acid azo dye ink; humectant **ink jet printing**; dehydroacetate mildewcide ink; dye disazo **ink jet printing**
IT Humectants
(ethers and polyols, for nonclogging **jet-printing inks**)
IT Fungicides and Fungistats
(for mildew control, for aq. **jet-printing inks**)
IT Dyes, azo

(terephthalanilide derivs., for **jet-printing inks**)
IT **Inks**
(**jet-printing**, water-thinned, nonclogging, contg. disazo dyes, humectants and mildewcides)
IT **56-81-5**, uses and miscellaneous 68-12-2, uses and miscellaneous 80-73-9 102-71-6, uses and miscellaneous 107-21-1, uses and miscellaneous 110-80-5 111-46-6, uses and miscellaneous 111-76-2 111-77-3 111-90-0 112-27-6 112-34-5 112-35-6 112-50-5 616-45-5 872-50-4, uses and miscellaneous 13693-59-9 25322-68-3 25322-69-4
(humectants, for **jet-printing inks**)
IT 103823-40-1 103823-41-2 103823-42-3 103823-43-4 103823-44-5 103823-45-6 103823-46-7 103823-47-8 103823-48-9 **103823-49-0 103823-50-3 103823-51-4 103823-52-5 103823-53-6** 103824-46-0
(**inks** contg., aq. **jet-printing** nonclogging)
IT 131-52-2 532-32-1 3811-73-2 4418-26-2
(mildewcide, for **jet-printing inks**)

=> d his l45-

FILE 'HCAPLUS' ENTERED AT 16:58:12 ON 26 JUN 2003
L45 70164 S YAMADA ?/AU
L46 22249 S FUJIWARA ?/AU
L47 399 S L45 AND L46
L48 8310 S YAMADA M?/AU
L49 4284 S FUJIWARA T?/AU
L50 8 S L48 AND L49
L51 1 S L50 AND L5
SEL L51 1 RN

FILE 'REGISTRY' ENTERED AT 17:00:31 ON 26 JUN 2003
L52 39 S E1-E39
L53 0 S L52 AND PMS/CI

FILE 'HCAPLUS' ENTERED AT 17:01:04 ON 26 JUN 2003
L54 5 S L47 AND L5
SEL L54 1-5 RN

FILE 'REGISTRY' ENTERED AT 17:01:14 ON 26 JUN 2003
L55 60 S E40-E99
L56 7 S L55 AND PMS/CI
L57 3 S L56 AND ?IMIDAZOL?/CNS
L58 4 S L56 NOT L57

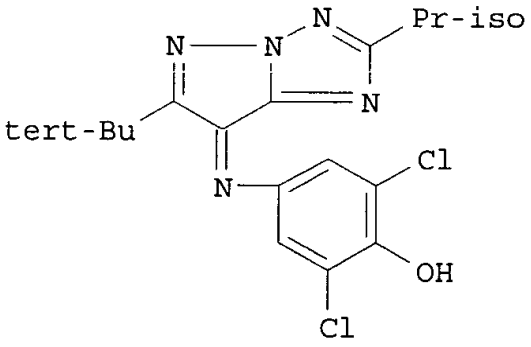
FILE 'HCA' ENTERED AT 17:03:05 ON 26 JUN 2003
L59 680 S L57
L60 5 S L59 AND L4

(one last try at the imidazolyl polymer business)

=> d 160 1-5 cbib abs hitstr hitind

L60 ANSWER 1 OF 5 HCA COPYRIGHT 2003 ACS
123:213303 Thermal transfer recording materials. Tateishi, Tomoyoshi (Fuji Photo Film Co Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 07112586 A2 19950502 Heisei, 15 pp. (Japanese). CODEN: JKXXAF.
APPLICATION: JP 1993-262691 19931020.

GI



I

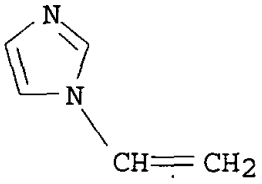
AB The thermal transfer dye-donating materials comprise supports coated with dye-donating layers contg. heat-transferable dissocg. dyes that can become anionic by transfer to dye-receiving layers to donate H atoms to the dye receptors, and cellulose deriv. binders. The materials provide high-d. images without blotting and good storage stability. Thus, thermal transfer recording was carried out by using a sheet with a dye-donating layer contg. I and Et cellulose and a receptor contg. AEA (dye receptor).

IT **25232-42-2**
(thermal-transfer recording dye-receiving layer)

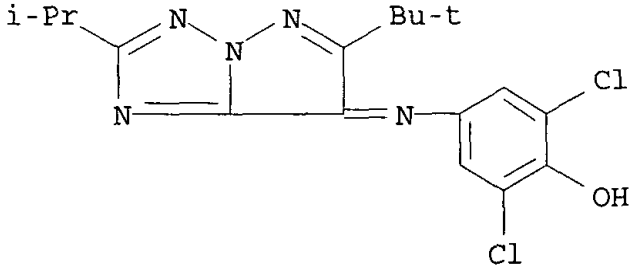
RN 25232-42-2 HCA
CN 1H-Imidazole, 1-ethenyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

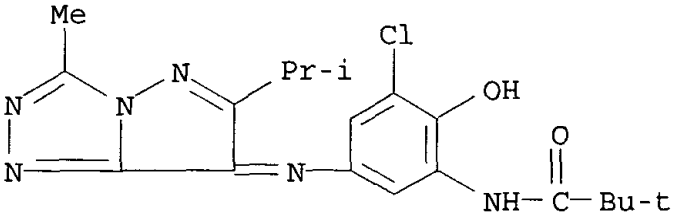
CRN 1072-63-5
CMF C5 H6 N2



IT **163921-17-3 163921-26-4**
(thermal-transfer recording material contg. dissocg. dye and cellulose deriv.)
RN 163921-17-3 HCA
CN Phenol, 2,6-dichloro-4-[[6-(1,1-dimethylethyl)-2-(1-methylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]- (9CI) (CA INDEX NAME)



RN 163921-26-4 HCA
CN Propanamide, N-[3-chloro-2-hydroxy-5-[[3-methyl-6-(1-methylethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]amino]phenyl]-2,2-dimethyl- (9CI) (CA INDEX NAME)



IC ICM B41M005-38
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT 25038-59-9, Vylon 280, uses **25232-42-2** 101482-42-2
(thermal-transfer recording dye-receiving layer)
IT 135274-81-6 **163921-17-3** 163921-20-8 163921-22-0 **163921-26-4**
(thermal-transfer recording material contg. dissocg. dye and cellulose deriv.)

L60 ANSWER 2 OF 5 HCA COPYRIGHT 2003 ACS
123:156486 Thermal-transfer coloring materials and its recording materials. Tateishi, Tomoyoshi; Usui, Hideo (Fuji Photo Film Co Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 07061145 A2 19950307 Heisei, 16 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1993-209668 19930824.

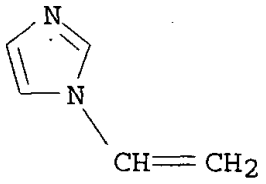
AB The thermal-transfer coloring materials have a colorant-transfer layer comprising a dissociative colorant which may be anion by giving H to the compd. in the colorant-receptor layer and polyvinylbutyral as a binder. The recording materials consist of the thermal-transfer coloring materials and image-receiving materials contg. .gtoreq.1 colorant-receiving compd. which may be cation by receiving H from the thermal-transfer colorant.

IT **25232-42-2 163921-17-3 163921-26-4**
(thermal-transfer recording materials contg. thermal-transfer colorant)

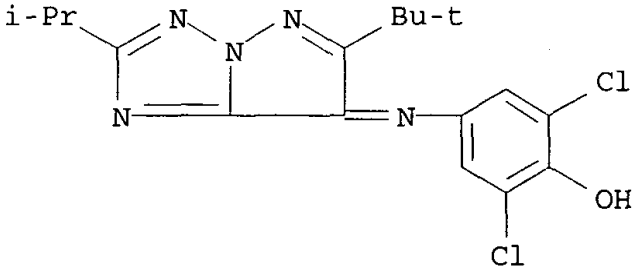
RN 25232-42-2 HCA
CN 1H-Imidazole, 1-ethenyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

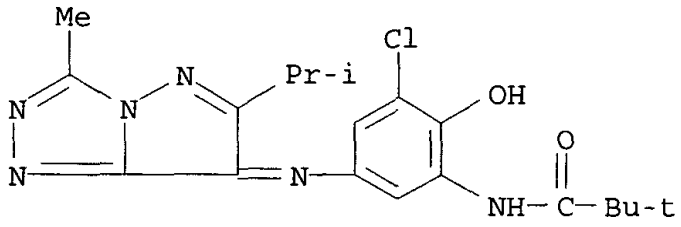
CRN 1072-63-5
CMF C5 H6 N2



RN 163921-17-3 HCA
CN Phenol, 2,6-dichloro-4-[[6-(1,1-dimethylethyl)-2-(1-methylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]- (9CI) (CA INDEX NAME)

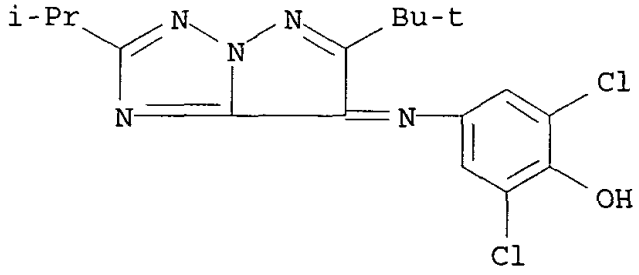


RN 163921-26-4 HCA
CN Propanamide, N-[3-chloro-2-hydroxy-5-[[3-methyl-6-(1-methylethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]amino]phenyl]-2,2-dimethyl- (9CI) (CA INDEX NAME)

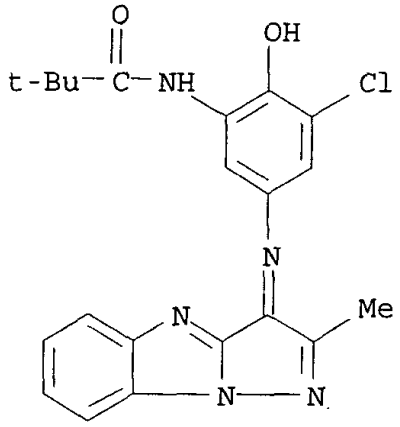


IC ICM B41M005-30
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT 111-41-1, A-EA 25038-59-9, Vylon 280, uses **25232-42-2** 101482-42-2 **163921-17-3** 163921-20-8 163921-21-9 163921-22-0 **163921-26-4**
(thermal-transfer recording materials contg. thermal-transfer colorant)

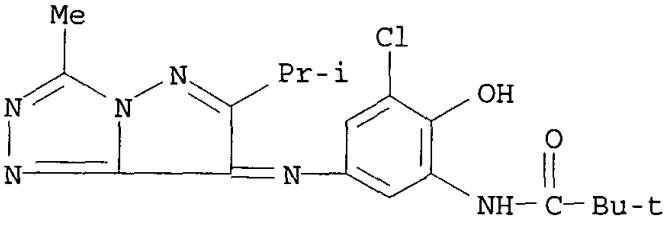
L60 ANSWER 3 OF 5 HCA COPYRIGHT 2003 ACS
123:22248 Thermal-transfer recording materials with transferred-image stability. Tateishi, Tomoyoshi; Kamio, Takayoshi (Fuji Photo Film Co Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 07061147 A2 19950307 Heisei, 18 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1993-210662 19930825.
AB The title materials contain thermal-transferable dyes capable of giving H to dye-receiving materials which include N-vinylimidazole deriv. polymers and gelatins.
IT **163921-17-3 163921-18-4 163921-26-4**
(thermal-transferable dyes)
RN 163921-17-3 HCA
CN Phenol, 2,6-dichloro-4-[[6-(1,1-dimethylethyl)-2-(1-methylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]- (9CI) (CA INDEX NAME)



RN 163921-18-4 HCA
CN Propanamide, N-[3-chloro-2-hydroxy-5-[(2-methyl-3H-pyrazolo[1,5-a]benzimidazol-3-ylidene)amino]phenyl]-2,2-dimethyl- (9CI) (CA INDEX NAME)



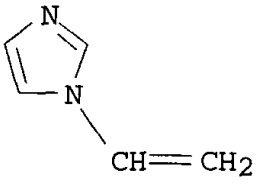
RN 163921-26-4 HCA
CN Propanamide, N-[3-chloro-2-hydroxy-5-[[3-methyl-6-(1-methylethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]amino]phenyl]-2,2-dimethyl- (9CI) (CA INDEX NAME)



IT **25232-42-2**
(vinyl polymers of dye-receiving layer)
RN 25232-42-2 HCA
CN 1H-Imidazole, 1-ethenyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 1072-63-5
CMF C5 H6 N2



IC ICM B41M005-38
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 41

IT 135274-81-6 137999-79-2 163921-16-2 **163921-17-3**
163921-18-4 163921-19-5 163921-20-8 163921-21-9
163921-22-0 163921-23-1 163921-24-2 163921-25-3
163921-26-4 163921-27-5 163967-17-7
(thermal-transferable dyes)

IT **25232-42-2** 103437-05-4 159105-83-6 163921-06-0
163921-07-1 163921-10-6 163921-12-8 163921-14-0 163921-15-1
(vinyl polymers of dye-receiving layer)

L60 ANSWER 4 OF 5 HCA COPYRIGHT 2003 ACS

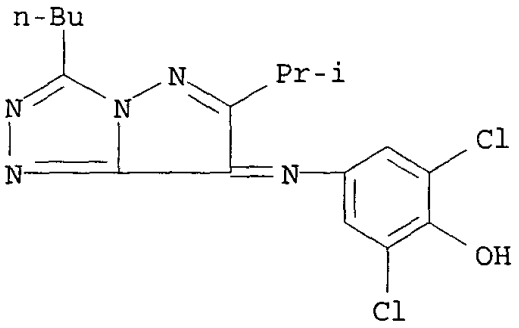
119:37646 Fabrication of color filter array for liquid crystal display. Komamura, Tawara; Miura, Akio (Konishiroku Photo Ind, Japan). Jpn. Kokai Tokkyo Koho JP 05027113 A2 19930205 Heisei, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1991-184682 19910724.

AB A process for making the title color filter array comprises the steps of heating the dye-contg. layer on a thermal transfer sheet and the mordant-contg. image receiver layer on a transparent support pressed against each other, thereby forming repeated mosaic pixel patterns by the reaction of the dyes and the mordants.

IT **147919-84-4 147919-88-8 147919-89-9**
147919-90-2
(liq. crystal display color filter array from, manuf. of, by thermal transfer)

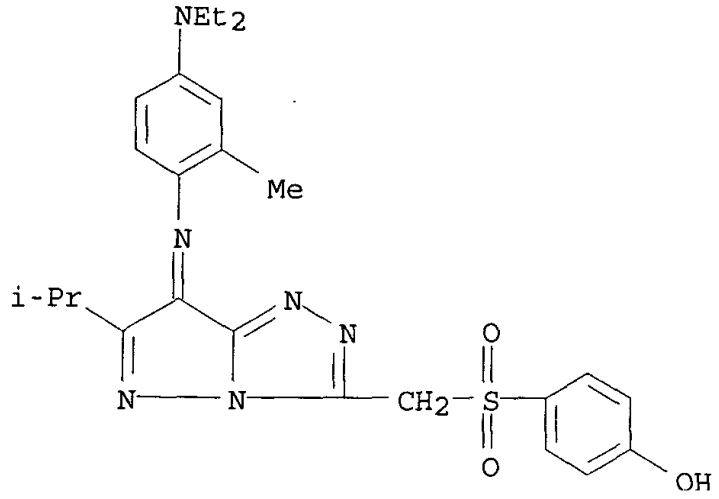
RN 147919-84-4 HCA

CN Phenol, 4-[[3-butyl-6-(1-methylethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]amino]-2,6-dichloro- (9CI) (CA INDEX NAME)

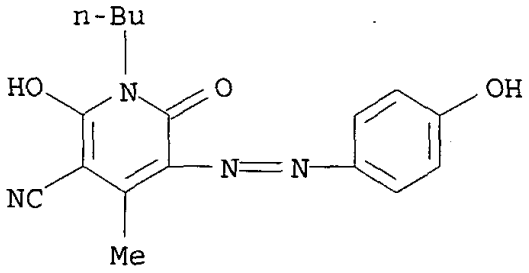


RN 147919-88-8 HCA

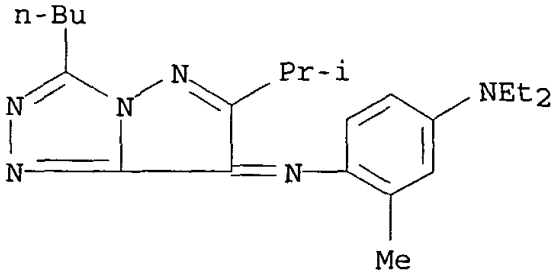
CN Phenol, 4-[[[7-[[4-(diethylamino)-2-methylphenyl]imino]-6-(1-methylethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl]methyl]sulfonyl]- (9CI) (CA INDEX NAME)



RN 147919-89-9 HCA
CN 3-Pyridinecarbonitrile, 1-butyl-1,6-dihydro-2-hydroxy-5-[(4-hydroxyphenyl)azo]-4-methyl-6-oxo- (9CI) (CA INDEX NAME)



RN 147919-90-2 HCA
CN 1,4-Benzenediamine, N1-[3-butyl-6-(1-methylethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]-N4,N4-diethyl-2-methyl- (9CI) (CA INDEX NAME)

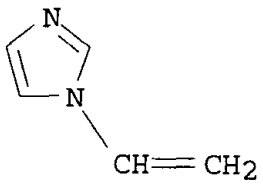


IT **25232-42-2**
(mordant, manuf. of liq. crystal display color filter using)

RN 25232-42-2 HCA
CN 1H-Imidazole, 1-ethenyl-, homopolymer (9CI) (CA INDEX NAME)

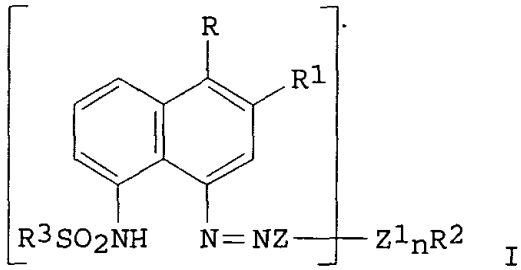
CM 1

CRN 1072-63-5
CMF C5 H6 N2

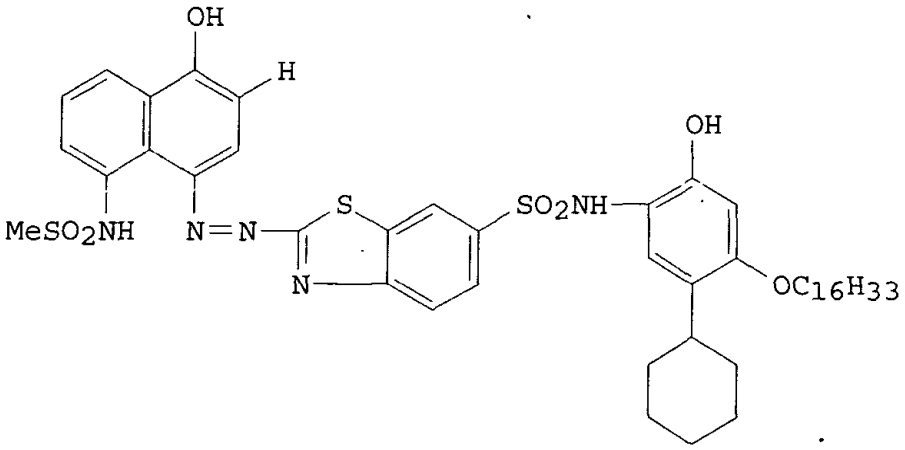


IC ICM G02B005-20
ICS B41M005-38; G02F001-1335
CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 73
IT 71812-03-8 137999-80-5 **147919-84-4** 147919-85-5
147919-86-6 147919-87-7 **147919-88-8** **147919-89-9**
147919-90-2 148424-23-1
(liq. crystal display color filter array from, manuf. of, by thermal transfer)
IT 1116-76-3, Trioctylamine 25232-41-1 **25232-42-2**
30551-89-4 30606-45-2 105035-67-4
(mordant, manuf. of liq. crystal display color filter using)

L60 ANSWER 5 OF 5 HCA COPYRIGHT 2003 ACS
102:140682 Color photographic material. Ono, Shigetoshi; Furusawa, Genichi (Fuji Photo Film Co., Ltd. , Japan). Ger. Offen. DE 3408500 A1 19840913, 68 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1984-3408500 19840308. PRIORITY: JP 1983-37903 19830308.
GI



I



IV

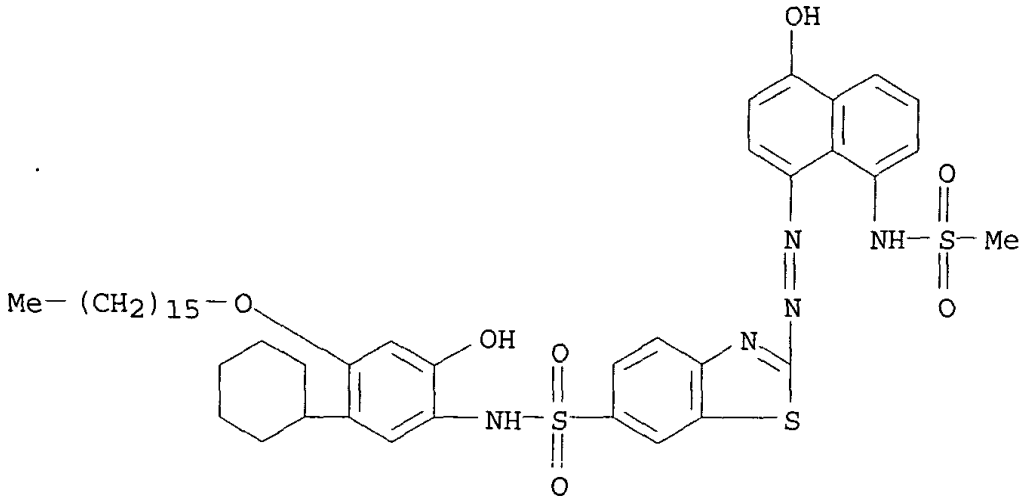
AB Light-stable color photog. images are formed by using an azo dye compd. of the general formula I (R = OH, an oxy salt, or OH precursor; R1 = H, sulfo, CN, fluorosulfonyl, halogen, SO3Ph, SO3Ph deriv., CO2H, SOR4 where R4 = alkyl, SO2R5 where R5 = alkyl, aralkyl, Ph, Ph deriv., COR5, SO2NR6R7 where R6 and R7 = H, alkyl, aralkyl, Ph, Ph deriv., and CONR6R7; R2 = a releasing group; R3 = alkyl, aralkyl, Ph, Ph deriv., amino, and a 5- or 6-membered heterocycle; Z = arom. hydrocarbon or a 5- or 6-membered heterocycle; Z1 = any connecting compd.) which forms very stable metal chelates. Thus, 2-(4-hydroxy-8-methasulonamidonaphthylazo)-6-sulfobenzothiazole (II) was prepd. by using the diazonium salt reaction of 2-amino-6-sulfobenzothiazole with 5-methanesulfonamido-1-naphthol. 6-Chlorosulfonyl-2-(4-hydroxy-8-methanesulfonamidonaphthylazo)benzothiazole (III) was prepd. by reaction of II with sulfolan, phosphoryl chloride, and DMA. IV was prepd. by reacting III with 2-amino-4-cyclohexyl-5-hexadecy loxyphenol hydrochloride. A color-image layer contg. gelatin, Ni acetate, polyvinylimidazole, and IV was exposed through a step wedge and developed to give a highly light-fast image.

IT **95523-64-1 95523-70-9 95523-71-0**
(color photog. azo dye metal chelating agent)

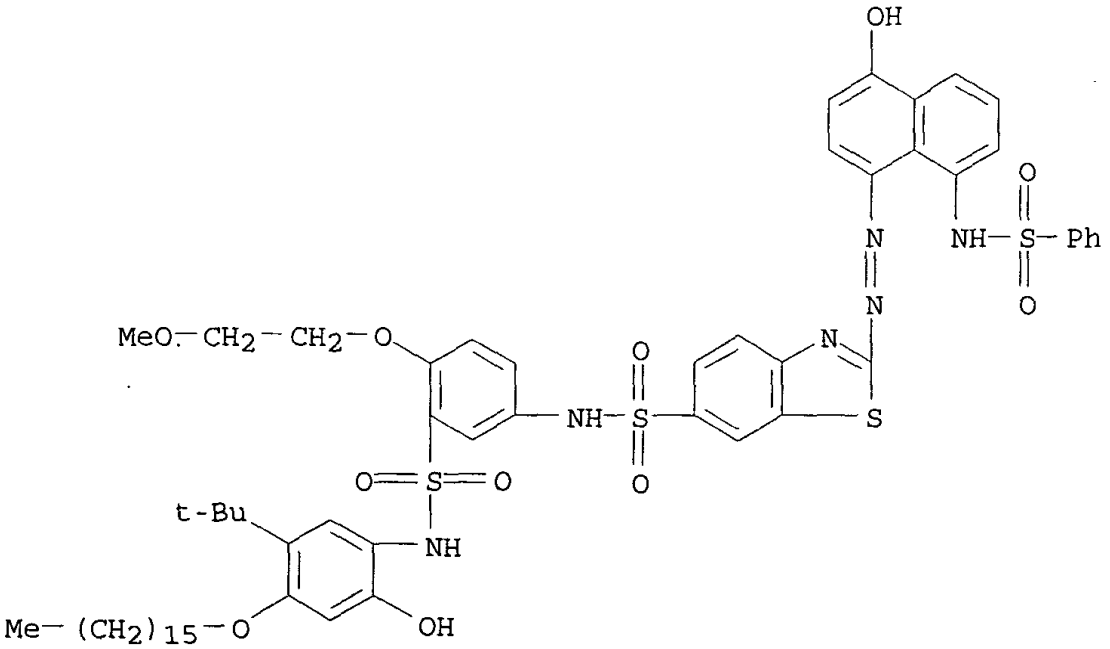
RN 95523-64-1 HCA

CN 6-Benzothiazolesulfonamide, N-[5-cyclohexyl-4-(hexadecyloxy)-2-hydroxyphenyl]-2-[[4-hydroxy-8-[(methylsulfonyl)amino]-1-

naphthalenyl]azo]- (9CI) (CA INDEX NAME)



RN 95523-70-9 HCA
CN 6-Benzothiazolesulfonamide, N-[3-[[[5-(1,1-dimethylethyl)-4-(hexadecyloxy)-2-hydroxyphenyl]amino]sulfonyl]-4-(2-methoxyethoxy)phenyl]-2-[[4-hydroxy-8-[(phenylsulfonyl)amino]-1-naphthalenyl]azo]- (9CI) (CA INDEX NAME)



RN 95523-71-0 HCA
CN 2-Naphthalenesulfonamide, 4-[(6-chloro-2-benzothiazolyl)azo]-N-[3-[[[5-cyclohexyl-4-(hexadecyloxy)-2-hydroxyphenyl]amino]sulfonyl]-4-

(4-morpholinyl)phenyl]-1-hydroxy-5-[(phenylsulfonyl)amino]- (9CI) (CA INDEX NAME)

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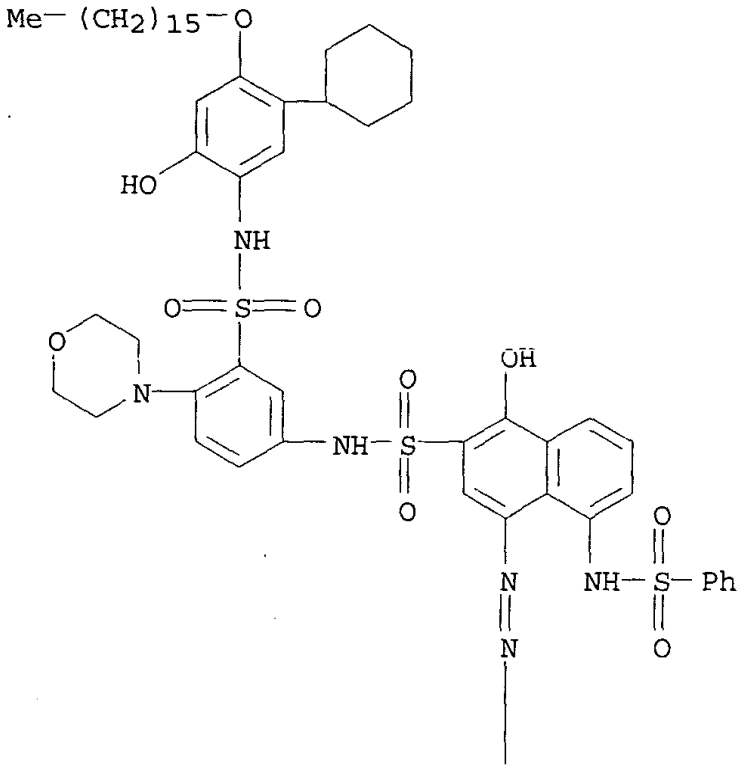

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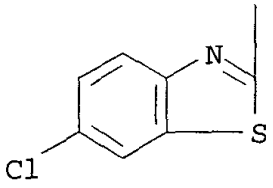
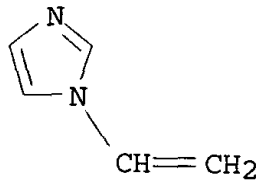


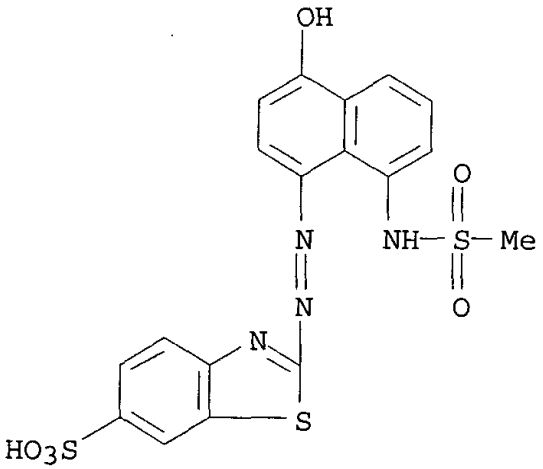
IT **25232-42-2**
(color photog. with azo dye complexation of metals in presence of)
RN 25232-42-2 HCA
CN 1H-Imidazole, 1-ethenyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 1072-63-5
CMF C5 H6 N2



IT **95523-65-2P**
(prepn. and chlorination of)
RN 95523-65-2 HCA
CN 6-Benzothiazolesulfonic acid, 2-[[4-hydroxy-8-[(methylsulfonyl)amino]-1-naphthalenyl]azo]- (9CI) (CA INDEX NAME)



IT **95523-67-4P**
(prepn. and color photog. applications of)
RN 95523-67-4 HCA
CN 1,3-Benzenedisulfonamide, N-[3-[[[5-cyclohexyl-4-(hexadecyloxy)-2-hydroxyphenyl]amino]sulfonyl]-4-(2-methoxyethoxy)phenyl]-N'-[5-hydroxy-8-[(4-nitro-1H-indazol-7-yl)azo]-1-naphthalenyl]- (9CI) (CA INDEX NAME)

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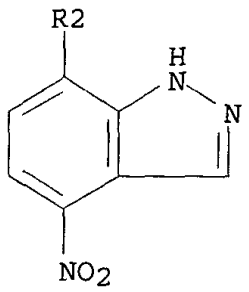

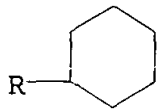

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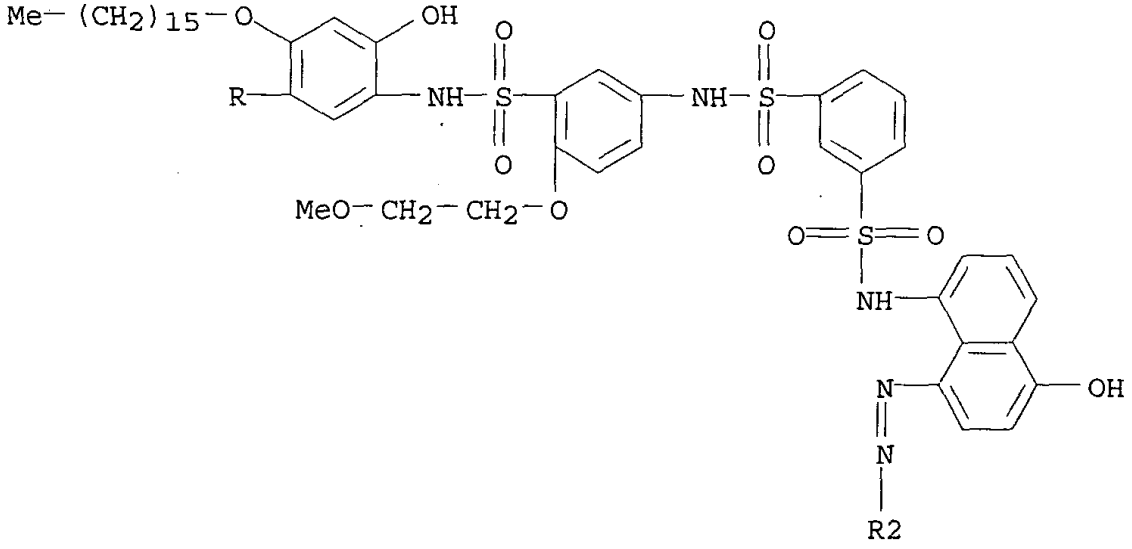
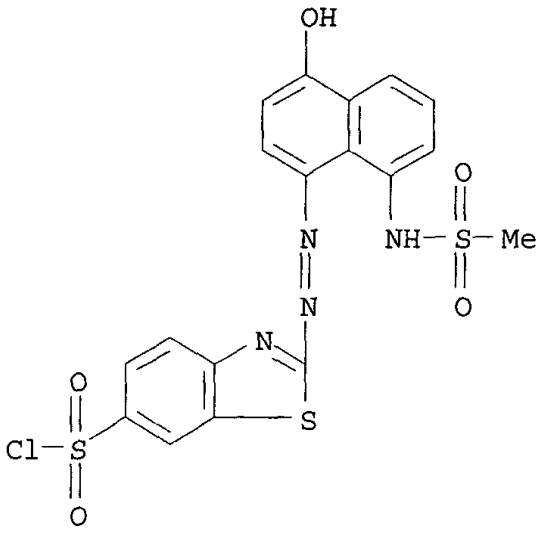
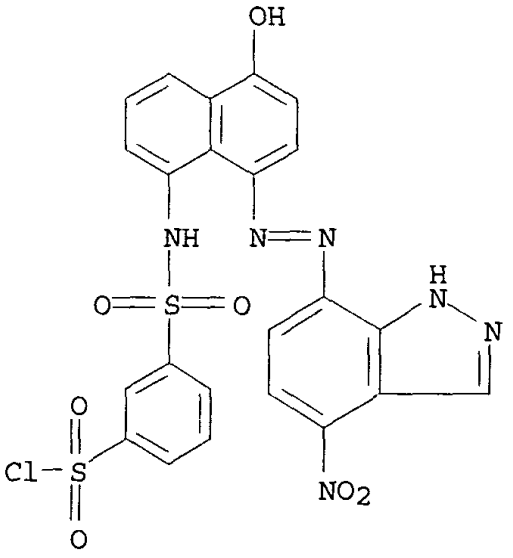


IT **95523-66-3P**
(prepn. and reaction of, with aminocyclohexylhexadecyloxyphenol hydrochloride)
RN 95523-66-3 HCA
CN 6-Benzothiazolesulfonyl chloride, 2-[[4-hydroxy-8-[(methylsulfonyl)amino]-1-naphthalenyl]azo]- (9CI) (CA INDEX NAME)



IT **95523-68-5**
(reaction of, with [amino(methoxyethoxy)benzenesulfonamido]cycloh exylhexadecyloxyphenol)
RN 95523-68-5 HCA
CN Benzenesulfonyl chloride, 3-[[[5-hydroxy-8-[(4-nitro-1H-indazol-7-yl)azo]-1-naphthalenyl]amino]sulfonyl]- (9CI) (CA INDEX NAME)



IC G03C005-54
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 41
IT **95523-64-1 95523-70-9 95523-71-0**

(color photog. azo dye metal chelating agent)

IT **25232-42-2**
(color photog. with azo dye complexation of metals in presence of)

IT **95523-65-2P**
(prepn. and chlorination of)

IT **95523-67-4P** 95523-69-6P
(prepn. and color photog. applications of)

IT **95523-66-3P**
(prepn. and reaction of, with aminocyclohexylhexadecyloxyphenol hydrochloride)

IT **95523-68-5**
(reaction of, with [amino(methoxyethoxy)benzenesulfonamido]cyclohexylhexadecyloxyphenol)